ATEMPORAL ANCHORING OF INDIVIDUALS, EVENTS AND SUB-EVENTS IN BLACKFOOT:

CONSEQUENCES FOR THE SYNTAX-SEMANTICS INTERFACE

by

Meagan Louie

A thesis submitted in conformity with the requirements

for the degree of Master of Arts

Graduate Department of Linguistics

University of Toronto

Atemporal Anchoring of Individuals, Events and Sub-Events in Blackfoot: Consequences for the Syntax-Semantics Interface

Meagan Louie

Master of Arts

2008

Graduate Department of Linguistics

University of Toronto

ABSTRACT

Keywords: Blackfoot, Infl, anchoring, Tense, participancy, Person, inner aspect, events, sub-events, NPIs, existential assertions, truth-assertions.

This thesis takes as its springboard the proposal made by Ritter & Wiltschko (2005) - that the universal function of the syntactic node Infl is to anchor the event to the utterance, or some other relevant reference point, but that the content of Infl may differ cross-linguistically. They argue that while Infl in English is instantiated by temporal content related to the speech time (Infl = Tense), Infl in Blackfoot is instantiated by content relating to the speech-act-participants (Infl = Person.)

The main claim made here is that the parameter proposed by Ritter & Wiltschko shows further consequences which emerge in how phenomena at the syntax-semantics interface manifest. I address two interface phenomena - the first concerns sub-event structure, the second how syntactic anchoring is associated with assertions of truth and existence. First, I argue that that just as events (the predicated event and speech-event) are related to each other via temporal notions in English, but via notions of (speech-act)participancy in Blackfoot, *sub-events* are likewise related to each other via temporal notions (inner aspect, telicity/dynamicity) in English, but via notions of participancy (sentience/animacy) in Blackfoot. Second, I propose that anchoring entities (events and individuals) via Person differs substantially from anchoring entities via Tense in that while Tense is an objective category, Person is inherently subjective. I argue that evidence for this difference presents in the sphere of truth- and existential-assertions. By adopting the ideas proposed here, several exceptional properties of Blackfoot can be viewed as person-driven parallels of familiar, temporally-driven phenomena from languages like English, as opposed to cross-linguistic oddities.

GUIDE TO MORPHEME BREAKDOWN AND GLOSSES

Number marking

PL	plural
S	singular (or singular left unglossed as default)

Person Marking

0	inanimate (animate left unglossed as default)
3	third person proximate
3'	third person obviative
1	first person
2	second person
loc	local person (1st or 2nd)
21	inclusive first person plural, unspecified person (syncretic)

Verbal Mode/Mood Markers

NEG	negation
Y/N	YES/NO interrogative
CJ	conjunctive mode markers
SUBJ	subjunctive mode markers
IMP	imperative mode markers

Preverbs

IMPF	imperfective (cf. Frantz's 'durative')	(*á-*)
FUT	future	
N.ST	new state (cf. Frantz's 'perfective')	(*akaa)*
n.fact	non-factive	
ints	intensifier (very, really)	
INCH	inchoative	
rel	relative root (*then* or *there*, has discourse-subordinating meaning)	
means, source	means/manner/source/path/instrument linker morpheme	
gen	genuine; real	

Verb Stem

vai	verb animate(agent) intransitive
vii	verb inanimate (agent) intransitive
vti	verb transitive inanimate(theme)
vta	verb transitive animate(theme)
vrt	verb root
ben	benefactive final
acc	accompaniment final
refl	reflexive final
recip	reciprocal final
caus	causative final
bism	be in specified manner

Theme Markers

INV	inverse theme
DIR	direct theme

(Note that I often gloss the direct and inverse themes more informatively as: X>Y, where X=agent and Y=theme, and X and Y are numbers that indicate Person, eg. 1>2 indicates a first person acting on a second person, 3>loc indicates a third person acting on either first or second person.)

Verbal Complex Enclitics

DTP	Distinct Third Person pronoun
nonaff	non-affirmative ending
NOM	nominalizer

Nominal Stems

DEM	demonstrative
PRO	pronoun
poss	possessive form

Nominal Affixes

invis	invisible
non.partic	non-particular (non-referential, no number distinction)
uns	unspecified possessor

Other

CONN	connective *i-* (phonological epenthesis)

Acknowledgements

First off, I probably would have been lonely and miserable this past year if it weren't for Miwako Nogimori and Mélissa Chiasson. Living with you guys made this year so much fun! I want to acknowledge my fellow commiseraters – the 2008 MA group in alphabetical order: Mike Barkey, Laura Baxter, Ann Dolan, Ewan Dunbar, Yumiko Gondaira, Ailis Cournane, Vanessa Crandall, Sofia Kanibolotskaia, Emma Lawson, Sandra Liu, Christina Marshall, Mark Pollard, Michelle St-Amour, Lyn Tieu, and (although technically she was PhD1) Sandrine Tailleur. And thanks to the non-MA vowelyballers, Smiljka, Rashid, Chiara.

I also want to thank the profs at the University of Toronto, listed in the order in which I met them: Alana Johns, Keren Rice, Duk-Ho An, Elizabeth Cowper, Diane Massam, and Michela Ippolito. I learned a lot more than I thought possible this year, and it was due to them. Thanks also to the undergraduate profs at UBC, who introduced me to linguistics, and were crucial in forming my research interests. Again, listed in the order in which I encountered them, Doug Pulleyblank, Rose-Marie Déchaine (with whom after speaking nearly always results in a breakthrough), Martina Wiltschko (who, among a hundred other things, taught me how to think like a linguist), Guy Carden, and Hotze Rullmann. Thanks also to all the people who floated in and out of the UBC Blackfoot Group: Tyler Chang, Mario Chavez-Peon, Donald Derrick, Joel Dunham Matt Gehrke, Kim Koch, Amelia Reis-Silva, Shujun Chin, Mike Barrie and Heather Bliss. Solveiga Armoskaite should get special blame for convincing me to take the Blackfoot Field Methods class (the best course I ever took) and encouraging me to continue on studying linguistics.

I want to thank my family; my mom, and my dad – who are always supportive, and my siblings, Kristal, Kim and Michael – the cc-ed e-mails were not only hilarious, they were important enough to me that I've archived them : D.

At this point there's one rather obvious, glaring, omission. The other influential teacher I haven't mentioned yet, and wish to thank dearly, is Beatrice Bullshields – thank you for sharing your language with me in such a patient manner - *nitiksikohtááhsi'taki*!

I was funded in part, for this year, by a SSHRC CGS Masters scholarship #766-2007-1091.

TABLE OF CONTENTS

0.0 INTRODUCTION

This thesis is an investigation into further consequences for the proposal made by Ritter & Wiltschko (2005) – the Parametric Infl Substantiation Hypothesis. The heart of Ritter &Wiltschko's proposal is that while the core function of Infl is universal - to anchor the event being spoken about to the speech event – the manner in which Infl is substantiated may differ cross-linguistically. They offer three different ways in which Infl may be instantiated – the predicated event may either be anchored to the speech event either

i) temporally (via the speech event time),
ii) spatially (via the speech event location), or
iii) personally (via the speech-event participants).

They suggest that where English Infl is instantiated as Tense, anchoring events to utterances temporally, Upriver Halkomelem Infl and Blackfoot Infl is instantiated instead as Location and Person respectively. Thus where English temporally anchors the event by asserting that the time of the predicated event coincides with the time of the speech event (present tense), or by asserting that the predicated event does not coincide with the speech event (past tense), Halkomelem spatially anchors the event by asserting that the location of the predicated event coincides (or doesn't coincide) with the location of the speech event. Blackfoot participant-anchoring, they propose, asserts that the participants of the predicated event coincide (or don't coincide) with the participants of the speech event (i.e., the speaker and hearer.)

Ritter & Wiltschko mainly focus on the syntactic consequences for their proposal. The main proposal of this thesis is that their proposal also shows consequences which emerge in the manifestation of phenomena aligned along the syntax-semantics interface. There are two main aspects of the syntax-semantics interface that I address in this thesis. The first phenomenon I address is the mapping of semantic roles to syntactic arguments - the area of study commonly referred to as event structure. Viewing Ritter & Wiltschko's proposal as an argument that events (i.e., the predicated event and the speech event) are related to each other temporally in English, but via participants in Blackfoot, I argue that sub-events in English and Blackfoot behave the same way. That is, sub-events are related to each other temporally in English, but via the sub-event participants in Blackfoot. The second interface issue I address is the relationship between the syntactic node Tense, and existential event

closure (cf. Higginbotham 1985, 2000.) I argue that anchoring entities via the category Person (which is inherently subjective) differs significantly from anchoring entities via the category Tense (which is ostensibly objective). I further propose that the effects of this difference manifest in the behaviour of existential assertions and assertions of truth.

0.1 A Guide to the Chapters

In Chapter One I provide a brief outline of the grammatical aspects of Blackfoot, drawing attention to aspects that are relevant for following discussion.

In Chapter Two I outline the theoretical basis for my study; providing a summary of Ritter & Wiltschko's proposal and arguments for the lack of inflectional Tense in Blackfoot.

In Chapter Three I introduce the first half of my proposal. The relevant interface area that this chapter deals with is the relationship between syntactic arguments and semantic roles – more specifically, how semantic roles are mapped onto syntactic arguments. This area of interest is often referred to as event structure, due to the fact that each role is often associated with a specific sub-event within the main, predicated event. The main idea put forth in this chapter is that just as the predicated event is related to the speech event via notions of Person/Participancy in Blackfoot, as opposed to temporal notions as in English, I suggest that sub-events within the predicated event are also related to each other via notions of Person/Participancy in Blackfoot, as opposed to via temporal notions (inner aspect) as in English. I argue that by taking this suggestion to heart, several morphosyntactic phenomena of Blackfoot can receive a principled account as person-driven parallels of more familiar temporally-driven phenomena from English. I contend that this is preferable to analyzing these phenomena as unique language(or language family)-specific phenomena.

In Chapter Four I introduce the second half of my proposal, which relies on the intuition that existential event closure is related to the syntactic function of Tense – i.e., that of anchoring the event temporally. More specifically, I suggest that by anchoring the event temporally, and asserting that an event is located at a certain point in time, one ipso facto asserts that the event exists in the real world. I

then suggest that because anchoring via Person is inherently subjective[1], as opposed to anchoring via Tense which is ostensibly objective, existential event closure in Blackfoot should behave differently in Blackfoot from English. Because Ritter & Wiltschko (2005) propose that their anchoring proposal holds for individual entities as well as event entities, I first look at a domain where existential assertions are easier to gauge – the nominal domain. I argue Blackfoot's nominal domain shows evidence that the existence of individuals are not asserted in the same manner that they are in English, drawing on evidence from negative polarity items.

In Chapter Five I return to the original issue brought forth in chapter four, and look at consequences for existential event closure in the clausal domain. Here I suggest that the relevant semantic property to investigate are categorical truth assertions – more specifically, I suggest that asserting the existence of an event in the real world is equivalent to asserting the truth of the event's corresponding proposition. With this equivalence in mind, I argue that while unmarked propositions in English are categorical truth-assertions, this is not the case in Blackfoot.

I address unresolved issues and conclude in Chapter Six.

0.2 A note to the Reader

As forewarning to the reader, this thesis does not attempt to provide a clearly-defined and detailed system in which to analyze the addressed interface phenomena. The contribution this thesis offers is rather a broad conceptual mind-map, or outline, meant as a possible guide for further, more detailed inquiries at Blackfoot's syntax-semantics interface. Much further research is required in order to determine whether a clearly-defined and detailed system can be satisfactorily built based on the conceptual framework proposed in this work. With this caveat in mind, I move onto Chapter One, a brief outline of the relevant aspects of Blackfoot's grammar.

[1] in that it is inherently associated with a perspective, or viewpoint, i.e., that of a speech-act participant. This is in contrast to Tense and Location, anchoring methods which need not be associated with a particular perspective or viewpoint, making these categories ostensibly objective.

1.0 CHAPTER ONE: INTRODUCTION TO BLACKFOOT

This thesis focuses mainly on Blackfoot, and how it contrasts with English. Because Blackfoot is a relatively understudied language, and because Blackfoot (at least on the surface) functions quite differently from more commonly studied languages, in this chapter I provide a brief introduction to the language, highlighting some aspects of the grammar that are relevant to later discussion.

Blackfoot is an Plains Algonquian language spoken in western Canada and parts of Montana. The Northern Blackfoot, or Blackfoot proper, (*Siksiká)* Reserve is east of Calgary, the Blood (*Kainaa*) Reserve is between Cardston and Lethbridge, and the Piegan (A*apátohsipipiikani*) Reserve is west of Fort Mcleod. The reservation in North-West Montana is called the Blackfeet (*Aamskáápipiikani*) Reservation. Ethnologue estimates 5000 speakers of Blackfoot, with possible monolinguals. Blackfoot is thus relatively healthy compared to the majority of languages originating in western Canada – there are even reports of children learning the language, however the fluency rate of young children is quite low (Russell & Genee 2006.) Its speaker numbers are fewer, however, in comparison to those of the related Algonquian languages further east such as Cree and Ojibwe.

There are three major sources of documentation: Uhlenbeck's 1938 *A Concise Grammar*, Taylor's 1969 Ph.D. dissertation and Frantz's 1991 *Blackfoot Grammar* (as well as related dictionaries). Uhlenbeck and Taylor focus on the Southern Piegan dialect of the language; Frantz generalizes over the four dialects, providing notes where dialectal differences may occur. Unless otherwise cited, the data for this study comes from the author's field notes. The consulted speaker is from the Blood (*Kainaa*) Reserve.

Some basic aspects of Blackfoot, in order to provide a framework for the following discussion, will be helpful. First, Blackfoot is primarily a head-marking language; the number and person of the relevant arguments are indicated via morphology on the verbal complex. Overt nominals are thus largely optional, and free with respect to whether they precede or follow the verbal complex. Second, other parts of speech familiar from Indo-European languages, are also usually verbal in nature. For example, what in English might be a predicative adjective is usually an intransitive verb in Blackfoot. Auxiliary verbs are realized morphologically as "preverbs" which are part of the verbal complex. The same is true of adverbs of manner, degree and aspect. Adposition-like elements are likewise realized as morphemes that form part of the verbal complex. With this basic sketch out of the way, I now move

towards a more detailed look at relevant morphosyntactic properties of Blackfoot. The discussion below is based on Frantz's 1991 *Blackfoot Grammar*. Generalizations for the most part reflect the speech patterns of my language consultant, however I indicate any incongruities if they are relevant to further discussion. First I outline aspects relevant for the nominal domain, and then I turn to the verbal/clausal domain. Along the way I will draw attention to the aspects of Blackfoot's grammar that are particularly relevant for the proposals of this thesis.

1.1 The Nominal complex (The Nominal Domain)

Within its nominal domain, Blackfoot distinguishes two grammatical genders; **animate** and **inanimate**. While the (in)animacy of the nominal generally corresponds to a real-life (in)animacy ((non-)sentience, borrowing a term from Bliss 2000), there do exist nouns that are grammatically animate yet non-sentient[2].

(1)

Animate nouns (sentient)		Animate nouns (non-sentient)		Inanimate nouns	
ponoká	"elk"	*moápssp*	"eye"	*nííp*	"leaf"
natáyo	"lynx"	*pokón*	"ball"	*mo'tokáán*	"head"
nínaa	"man"	*isttoán*	"knife"	*aohkíí*	"water"

(Data from Frantz 1991:8)

As a note, the majority of researchers parallel the animate/inanimate distinction as a gender distinction similar to the masculine/feminine gender distinction in French, for example. I therefore present the distinction here as one of gender, however while developing the ideas in this thesis, I eventually suggest that the animate/inanimate distinction in Blackfoot should actually be viewed as morphosyntactically parallel to the mass/count distinction (see chapter three.)

Blackfoot also distinguishes **singular** from **plural**, where all nouns can take plural marking. Plural marking co-varies with the grammatical gender of the nouns, as shown below in table (2) – animate nouns take the plural marker *–iksi*, whereas inanimate nouns take the plural marker *–istsi.*

[2] As a glossing note, I gloss inanimates as 0, and do not specify gender for animates.

(2)

Animate nouns		Inanimate nouns	
singular	plural	singular	plural
ponoká-wa	*ponoká-íksi*	*nííp-yi*	*nííp-istsi*
natáyo-wa	*natáyo-iks*	*mo'tokáán-yi*	*mo'tokáán-istsi*
nínaa-wa	*nínaa-iksi*	*aohkíí-yi*	*Aohkíí-istsi*

(Data from Frantz 1991:8-9)

Within animate gender nouns, Blackfoot makes a distinction between **proximate** and **obviative**. Proximacy refers to a property of discourse-salience that the literature refers to inconsistently as either topicality, focus of interest, or prominence (Aissen 1997:706). Third person animate entities may thus be either proximate, which indicates a discourse-salient third person, or they maybe obviative, which indicates a less salient third person. Singular proximate nouns are morphologically marked with a suffix *–wa*, as in the table above. Singular obviative nouns are marked with *–yi*, like inanimate nouns. Blackfoot does not make this distinction morphologically when it comes to plural nouns; both proximate and obviative plural nouns take the suffix *–iksi*.

(3)

Animate nouns - Proximate		Animate nouns - Obviative	
singular	plural	plural	plural
ponoká-wa	*ponoká-íksi*	*ponoká-yi*	*ponoká-íksi*
natáyo-wa	*natáyo-iksi*	*natáyo-yi*	*natáyo-iks*
nínaa-wa	*nínaa-iksi*	*nínaa-yi*	*nínaa-iksi*

(Data from Frantz 1991:8-13)

Blackfoot nouns used as arguments are generally preceded by demonstratives; these demonstratives inflect for number, gender and proximacy[3].

[3] When considering the data that will follow in the rest of this study, the reader may want to note that in elicitation contexts, my language consultant often does not mark proximate/obviative on nouns. This is reflected in the data and glossing. The proximate/obviative distinction is upheld within demonstratives, however.

(4)

Animate nouns - Proximate		Animate nouns - Obviative	
singular	plural	plural	plural
om-wa ponoká-wa DEM-3 elk-3 "that/the elk (prox)"	*om-iksi ponoká-íksi* DEM-PL elk-PL "those elk(pl, prox)"	*om-yi ponoká-yi* DEM-3' elk-3' "that/the elk (obv)"	*om-iksi ponoká-íksi* DEM-PL elk-PL "those elk(pl, obv)"

(5)

Inanimate nouns		
singular	plural	
om-yi nííp-yi DEM-0 leaf-0 "that/the leaf"	*om-istsi nííp-istsi* DEM-0PL leaf-0PL "those/the leaves"	

The Blackfoot demonstrative stems indicate whether or not the noun in question is closer to the speaker (*amo-*), close to the addressee (*anno-)* or distant from both speech act participants (*om-*). Other information about the deictic sphere may also be encoded as suffixes, such as whether or not the noun in question is visible to the speaker.

(6)

anná	*annáhka*	*kínnahka?*
ann-wa	ann-wa-**hka**	k-ínn-wa-**hka**
WHERE-3s	that-3s-**invis**	2-father-3s-**invs**

"Where is your father?" (Frantz 1991:66)

Nominals that do not require demonstratives, yet may function as arguments are possessive phrases. Note, however, that possessive phrases can also take demonstratives.

(7) Bare possessive phrase

naaahsiksi	*aisukowomayaa*	*maakitapotsaa*	*kaanótsisisin*
n-aaahs-iksi	a-isookowom-a-yaa	om-aak-itap-oo-hs-yaa	ohkano'tsisii-hsiN
1-Elder-PL	IMPF-?invite?-DIR-3PL	3-FUT-towards-go.vai-CJ-3PL	hold.mp.dance.vai-NOM

"My grandparents would get invited to attend a medicine pipe dance."

(8) Possessive phrase with demonstrative

kitáákohtsstsipssatuh	***ana***	***kísis***
kit-áák-oht-tssitsipssat-o	**an-wa**	**k-isis**
2-FUT-source-talk.vta-1>2	DEM**-3**	**2-younger.brother**

"I'm gonna tell you something about your brother."

The other form of nominal that does not require a demonstrative in order to be grammatical fall into a category that Frantz terms "non-particular." Frantz characterizes these nouns as being non-particular or unspecified with respect to their reference, which means that this form of a noun is used when a speaker does not have a particular, or actual entity in mind. Non-particular nouns are indicated with a suffix *–i*, and they are not specified as either singular or plural[4]. Examples are as in (9).

(9) Non-particular nouns

a) *nítohpommaa* ***náápioyii***
nit-ohpommaa **náápioyi-i**
1-buy.vai **house-non.partic**
"I made a house-purchase."

b) *áóoyiyaawa* ***owái***
á-ooyi-yaawa **owá-i**
IMPF-eat.vai-3PL **egg-non.partic**
"They are eating egg(s)." (Frantz 1991:41)

[4] I gloss plurals as PL, and do not specify when glosses are singular. Unspecified/non-particular is glossed as non.partic.

This aspect of Blackfoot's nominal domain is also relevant for later discussion. In particular, in chapter three I argue that the fact that only non-particular nouns can be the objects of "pseudointransitive" verbs in Blackfoot (verbs that inflect morphologically as if intransitive, yet appear with an overt nominal object) indicates that the object of Blackfoot's pseudointransitives have a different semantic (and correlatingly, a different syntactic) status than the object of true Blackfoot transitives.

Having briefly outlined the major morphosyntactic properties of the nominal domain, I now move onto the clausal domain.

1.2 The Verbal complex (The Clausal Domain)

The verbal domain is the area of most complexity in Blackfoot grammar. The verb stem contains information regarding the lexical meaning of the predicate, its transitivity, and the animacy of the arguments involved. Information regarding the person, number, and proximacy[5] of the verb's arguments is also encoded by morphemes preceding and following the verb stem. Finally, information regarding the veridicality of the proposition, and aspectuality, manner, and degree associated with the predicate is also encoded by morphemes that precede the verb stem. The three zones of the verbal complex mentioned – the verb stem, before the verb stem, and following the verb stem, break down further into smaller zones. The most complex verbal complex – that associated with transitive verbs - is diagrammed below in (10):

(10) Transitive Verb Template:

PERSON– (NEG, Y/N) – (PREVERBS) – [$_{\text{VERB STEM}}$ INITIAL-(MEDIAL)-FINAL] – DIR/INV – PERSON/# –3 #/GEN

The organization of this section is based on (10): - I address each morpheme slot in the verbal template, moving from left to right.

[5] with respect to the proximate/obviative distinction, not a distal/proximate distinction.

1.2.1 The Person Prefixes

PERSON– (NEG, Y/N) – (PREVERBS) – [$_{\text{VERB STEM}}$ INITIAL-(MEDIAL)-FINAL] – DIR/INV – PERSON/# – 3#/GEN

The first slot in the Blackfoot verbal complex is a slot for what are commonly termed "person prefixes." The person prefixes are *nit-*, which indicates a first person, and *kit-* which indicates a second person, and the lack of a person prefix (or a null personal prefix) by default indicates a third person[6]. Each of these compete with each other for the single slot - thus there is only ever one person prefix per verbal complex. If both first and second person arguments are involved in the proposition, then second person takes priority and *kit-* will appear in this slot.

(11) Blackfoot Person Prefixes

1st person	(*nit-*)
2nd person	(*kit-*)
3rd person	(∅-, ot-)

One important thing to note is that while these person prefixes are dedicated to indicating whether an argument is 1st, 2nd or 3rd person, these prefixes are not dedicated to a specific syntactic argument – i.e, these are not subject agreement markers, or object agreement markers. The first person prefix marker *nit-* may indicate either a 1st person subject/agent, or a 1st person object/agent. The second person prefix marker *kit-* may indicate either a 2nd person subject/agent, or a 2nd person object/patient.

These person prefixes are highly relevant for the purposes of this thesis as Ritter & Wiltschko (2005) propose these person prefixes to be the morphological instantiations of Blackfoot's Infl node – i.e., the morphological instantiation of person anchoring. This is important for the proposal in chapter five, where I suggest that Ritter & Wiltschko's Parametric Infl Substantiation Hypothesis is better recast in terms of a markedness distinction, as opposed to a discrete distinction.

[6] This is true of the indicative mode. In the conjunctive mode, third person is indicated by a prefix *ot-*.

1.2.2 Negation and the Interrogative

PERSON– **(NEG, Y/N)** – (PREVERBS) – [$_{\text{VERB STEM}}$ INITIAL-(MEDIAL)-FINAL] – DIR/INV – PERSON/# – 3#/GEN

Negation (*máát-*), if present, follows the personal prefixes and precedes any other morphemes. The interrogative morpheme (*ikata'-*), likewise, is found directly after the personal prefixes in the verbal complex, and precedes any other morphemes. These two morphemes also appear to compete for this slot in the verbal complex as the two are in complementary distribution.

One aspect of this verbal template position is also relevant for later purposes. The thing to note is that the description of negation above is simplified. While negation in the form of *máát-* can only ever appear after the personal prefixes, and must occur before any other morphemes, there are also other negative morphemes. For example, there is a negative morpheme *sa-,* which in the indicative mode usually follows other morphemes that intercede between it and the personal prefixes. I later use this as evidence in chapter four that *máát-* and *sa-* have different structural positions, which is relevant to my argument that certain clitic-like elements in Blackfoot are negative polarity items, despite the fact that they lack the characteristic semantic property associated with NPIs – i.e., existential narrow scope.

1.2.3 Preverbs

PERSON– (NEG, Y/N) – **(PREVERBS)** – [$_{\text{VERB STEM}}$ INITIAL-(MEDIAL)-FINAL] – DIR/INV – PERSON/# –3 #/GEN

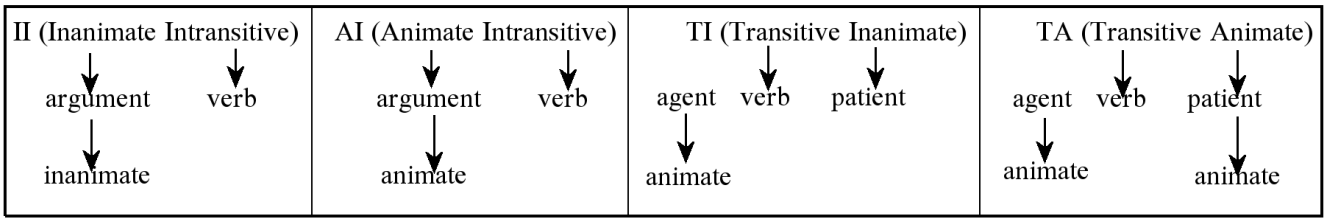
Following the personal prefixes and negation/interrogation (if present), is the domain of preverbs. Preverbs are optional, modificational elements – this includes adverbs of tense, aspect, manner, degree, as well as "linker" morphemes, which function like adpositions in that they link a non-argument nominal to the predicate. Unlike the previous two morpheme slots, preverbs do not appear to be in competition with each other. Several can appear within a single verbal complex, with varying degrees of flexibility with respect to linear order.

1.2.4 The Verb Stem

PERSON– (NEG, Y/N) – (PREVERBS) – [VERB STEM **INITIAL-(MEDIAL)-FINAL**] – DIR/INV – PERSON/# – 3#/GEN

Traditional Algonquianist literature (cf. Bloomfield 1946) holds that the Algonquian verb stem can be divided into three parts – initials, medials and finals. Initials contain the main meaning of the predicate (eg. RUN, DANCE, LAUGH, etc). Medials are nominal/classificatory elements. Finals, which come in two kinds, indicate the valence of the predicate, as well as the animacy of the arguments involved. The valence and animacy of the arguments involved underlie Bloomfield's well-known 4-way verb stem classification system for Algonquian – verb stems can be either Inanimate Intransitive (II), Animate Intransitive (AI), Transitive Inanimate (TI) or Transitive Animate (TA). The valence and animacy of the arguments involved in each of these four types of verb stems are summarized below in (12):

(12) Bloomfield's 4-Way Verb Stem Classification for Algonquian



Intransitive verbs (II, glossed vii) have a single inanimate argument. An example of some II verbs follow in (13).

(13)Examples of Inanimate Intransitive Verbs

a) *aanistsinaattsi vii*; appear as

eg. *áak**anistsinaatsi**wa*

"it will appear as (such)"

b) *ikahkapi'kaa vii*; break (said of a rope/string-like object)

eg. *áaks**ikahkapi'kaa**wa*

"it (your shoelace) will break."

c) *akákkoma'pii vii*; be difficult and important

eg. *áak**akákkoma'pii**wa*

"it will be difficult and important."

d) *ihkitsi vii*; dry

eg. *áak**ihkitsi**wa*

"it will dry."

e) *matónni vii*; be yesterday

eg. ***matónni**wa*

"it was yesterday." (Frantz & Russell 1989)

Animate Intransitive verbs (AI, glossed vai) have a single animate argument. Examples are as in (14).

(14) Examples of Animate Intransitive Verbs

a) *maohksinaa*(*m*) *vai*; be red

eg. *áak**omaohksinaam**ma*

"He will be red."

b) *niisitoyi*(*m*) *vai*; be five

eg. ***niisitóyim**miaawa*

"There are five of them."

c) *ohkaanistapikii vai*; benefit

eg. *nimáát**ohkáánistapikii**hpawa*

"I did not benefit."

d) *saipokomsstsimaa vai*; blow out a puff of smoke

eg. *í**saipokomsstsimaa**wa*

"She blew out a puff of smoke." (Frantz & Russell 1989)

Transitive Inanimate verbs (TI, glossed vti) have an animate agent and an inanimate patient.

(15) Examples of Transitive Inanimate Verbs

a) *saipohtoo vti*; take out (from somewhere)

eg. *otókssini ii**<u>sáípohtoo</u>**mayi*

"He took his bed out(side)."

b) *waamatoo vti*; smell

eg. *nit**<u>áámatoo</u>**'pi kitsoyó'ssiistsi*

"I smelled your cooking."

c) *yaamsstsinni vti*; braid

eg. *nit**<u>áámsstsinii</u>**'pa no'tokáání*

"I braided my hair."

d) *ihtsiiyi'tsi vti*; admire, like; (eg. the chair)

eg. *ii**<u>htsíiyi'tsi</u>**ma*

"He liked it (eg. the name he was given)."

(Frantz & Russell 1989)

Transitive Animate verbs (TA, glossed vta) have an animate agent and an animate patient.

(16) Examples of Transitive AnimateVerbs

a) *yaamsstookio'to vta*; twist the ear of

eg. *i**<u>yáámsstookio'to</u>**yiiwa*

"He twisted her ear."

b) *ihtsíípi vta*; bring to town

eg. *nít**<u>sstsíípi</u>**ooka*

"She brought me to town."

c) *i'simm vta*; distrust, fear

eg. *nits**í'simm**oka*

"She distrusted me

d) *ohkoyimm vta*; adopt as son

eg. *áak**ohkoyimmii**wa*

"She will adopt him as her son."

(Frantz & Russell 1989)

Note that only sentient entities (real-life animate entities, a subset of grammatically animate entities) can be the agents of transitive clauses. Furthermore, unspecified/non-particular nouns cannot act as arguments at all. What we would expect to be a transitive verb, when the patient is an unspecified noun, acts grammatically like an intransitive, taking an AI stem[7]. Such constructions are variously termed "paratransitive" or "pseudointransitive" (cf. Frantz 1991.) This becomes relevant for some of the discussion in chapter three, where I argue that the "paratransitive" or "pseudointransitive" predicates are not only morphologically intransitive, but also syntactically intransitive.

A finishing note about finals, is, as mentioned previously, that finals come in two kinds. There are abstract finals and concrete finals. Abstract finals lack lexical meaning and just indicate the valence and animacy of the arguments involved. These finals are not productive.

[7] It should be noted that the speaker consulted for this study often treats bare plurals like unspecified/non-particular nouns, if they are interpreted within the scope of negation. Another speaker of the same dialect does not use bare plurals in this manner, using only unspecified nouns within the scope of negation (Lena Russell pc.)

(17) Examples of Abstract Finals (Data taken from Frantz & Russell 1989)

Trans	**II**	**AI**	**TI**	**TA**
be/find difficult	*iiyik**o***	*iiyik**oosi***	*iiyik**i'tsi***	*iiyik**imm***
catch w/ hands		*ikano'**taki***	*ikano'**tsi***	*ikano'**to***
win/be rewarded		*ikiik**i***	*ikiik**atoo***	*ikiik**at***
pack a horse		*iki'tayissksi**mma***	*iki'tayissksi**matoo***	*iki'tayissksi**mmat***
laugh (at)		*ikkahsi'**taki***	*ikkahsi'**tsi***	*ikkahsi**mm***
bite off of		*ika'ks**taki***	*ika'ks**tsi***	*ika'ks**ipi***
do to			*ikiiht**si***	*ikiiht**o***

Concrete finals, on the other hand, while also indicating the valence of the predicate, and the animacy of the arguments, are associated with a specific lexical semantic meaning. Thus concrete finals are associated with meanings like *causative*, *benefactive*, *reflexive*, *reciprocal*, etc. Unlike abstract finals, the concrete finals are productive – they attach to any stem that fits their selectional requirements.

(18) Examples of Concrete Finals

causative	*–áttsi, -(i)pi*	creates TA verbs from morphologically intransitive verbs
benefactive	*–o, -(o)mo*	creates TA verb from (mostly) other TA verbs
reflexive	*–o:hsi*	creates AI verbs from TA verbs
reciprocal	*–(o:)tsiiyi*	creates AI verbs fro TA verbs
denominal	*–wa'si, -hkaa, -hko, -yi*	create verbs from noun stems

(From Frantz 1991:102-109)

1.2.5 The Direct/Inverse Morphemes

PERSON– (NEG, Y/N) – (PREVERBS) – [$_{\text{VERB STEM}}$ INITIAL-(MEDIAL)-FINAL] – **DIR/INV** – PERSON/# – 3#/GEN

Up until this point, the properties of the verbal template discussed hold for both transitive and intransitive verbs. The difference in the verbal template between transitive and intransitive verbs is that transitive verbs have a slot dedicated to what are traditionally termed "theme markers" in Algonquianist literature – what I have labeled here as the direct/inverse morpheme slot. Recall that the person prefixes, while dedicated to indicating the person of an argument, are not dedicated to a specific syntactic argument. That is while *kit-* always indicates a second person argument, it may refer to either a second person subject, or a second person object, and likewise, while *nit-* always indicates a first person argument, it may refer to either a first person subject, or a first person object. With monovalent verbs, this is not an issue – the person prefix will indicate the person of the single argument. With bivalent verbs, however, the question arises as to how the speaker indicates which argument acts on the other. This is where the direct/inverse morphemes come into play – like other Algonquian languages, Blackfoot does not rely on either word order or a case-system to indicate grammatical relations. It uses the direct/inverse system, which relies on a person-animacy hierarchy (shown below) and the theme(direct/inverse) markers in conjunction with the person prefixes.

(19)

Local (1st, 2nd person)>>3rd Person (Proximate)>>3rd Person (Obviative)>>Inanimate

(Goddard and Bragdon 1988, Cited in Bruening 2005)

If the agent is higher on the person-animacy hierarchy than the patient, the verb will be marked with a **direct** marker.

(20)

*nitsinow**a*** *oma* *ninaa* nit-ino-**a** om-wa ninaa 1-see.vta-**DIR** DEM-3 man "I saw the man"	1st person >> 3rd person(prox) ↕ ↕ AGENT >> PATIENT

If the patient is higher on the person-animacy hierarchy than the agent, then the verb will be marked with an **inverse** marker.

(21)

*nitsin**ok*** *oma ninaa* nit-ino-**ok** om-wa ninaa 1-see.vta-**INV** DEM-3 man "The man saw me"	1st person >> 3rd person(prox)  AGENT >> PATIENT

The direct/inverse markers, besides encoding whether the patient is higher than the agent on the person-animacy hierarcy, also encode partial information about the person of the arguments involved. By also taking into account the person of the argument indicated by the person prefixes, the particulars of which argument acts on which argument can be determined. The following is a table for the direct/inverse markers in Blackfoot, and the partial information they encode.

(22) Blackfoot direct/inverse morphemes[8]

Actor → ↓ Patient	1	2	3	3'
1	n/a	***-oki***	***-ok***	***-ok***
2	***-o***	n/a	***-ok***	***-ok***
3	***-a***	***-a***	n/a	***-ok***
3'	***-a***	***-a***	***-yii***	n/a
0	***-'p***	***-'p***	***-m***	

1.2.6 Post-verbal Person/Number/Gender Suffixes

PERSON– (NEG, Y/N) – (PREVERBS) – [$_{\text{VERB STEM}}$ INITIAL-(MEDIAL)-FINAL] – DIR/INV – **PERSON/#** – **3#/GEN**

[8] Recall that Blackfoot reflexive constructions are formed by a concrete final which detransitivizes the predicate, accounting for why there are no 1>1, 2>2, 3>3 direct/inverse markers.

The verbal complex has more than one position for indicating person. Besides the person prefixes (see section 1.2.1) and the direct/inverse markers, the number suffixes also encode person along with plural number. These plural number suffixes only indicate number with respect to first and second person. The first person plural exclusive is indicated by the morpheme *–hpinnaana,* the second person plural morpheme is *–hpoaawa,* and the first person plural inclusive is indicated with the morpheme *-o'pa*. Like the person prefixes, these plural number morphemes are in complementary distribution; in the case that both a second person plural entity and a first person plural entity are arguments of the predicate, the first person plural exclusive morpheme *–hpinnaana* takes precedence and occupies this morpheme slot.

In addition to these number suffixes, Blackfoot also has pronominal elements that attach to the very end of the verbal complex. If present, these elements indicate the number, proximacy and animacy of a third-person argument. Because these are not relevant to topics at hand, I do not go into further details.

1.3 Summary of Chapter One

In this chapter I provided a sketch of Blackfoot grammar. In the next chapter I move onto the theoretical framework for this thesis, outlining the Ritter & Wiltschko's Parametric Infl Substantiation Hypothesis.

2.0 CHAPTER TWO: THEORETICAL BACKGROUND

This thesis takes as its starting point the proposals given in Ritter & Wiltschko 2004 and 2005. Their proposals are as follows:

i) Blackfoot lacks the inflectional category TP, and

ii) Blackfoot instead relies on a parallel functional phrase δP (Discourse Phrase), to carry out the anchoring function that TP performs in a language like English.

In this chapter I outline the particulars of Ritter & Wiltschko's proposals, and present some of their arguments.

2.0 Terminology: What is an Inflectional Category?

Before expounding the specifics of Ritter & Wiltschko 2004, I introduce a basic assumption that underlies their proposal. This is the distinction between the parts of language which instantiate *inflectional categories*, and the parts of language which do not. Thus Ritter & Wiltschko 2004 argue that Blackfoot lacks the inflectional category tense[9], but what exactly do they mean by the "inflectional category tense"? The relevant distinction between "inflectional" categories and those that are not can be defined as follows: A category is inflectional if it is obligatory - it must be expressed in order for an utterance to be grammatical (Ritter & Wiltschko 2004:1, cf. Mithun 1999:152). Otherwise the category has adjunct/modifier status. Note that this definition does not entail that a possible lack of morphological marking entails non-inflectional status – inflectional categories can often be instantiated with zero-morphemes. The way to distinguish between optionality, and inflectional zero-marking then, is to determine whether or not the lack of overt morphological marking is associated with a specific meaning. If the lack of morphological marking is associated with a specific meaning, the category is inflectional. If the lack of morphological marking is not associated with a specific meaning, then the category is of modifier status.

[9] They also use the terms "grammatical/grammaticized" tense, and "syntactic" tense. I take these to be freely interchangeable with, "inflectional" tense. For reasons of consistency, I will attempt to always use the term "inflectional tense."

An example of an inflectional category in English would be number – in English, nouns must be marked for number. Thus the plural is overly marked with the plural morpheme *–s,* while the singular is marked with a zero-morpheme -∅[10]. Thus in (23)a) below, although though number does not appear to be morphologically marked like it is in (23)b), the morphologically unmarked form *apple* in (23)a) is necessarily interpreted as being non-plural, or singular, as opposed to being interpreted as unspecified or unmarked for number. It is impossible to interpret *apple* in (23)a) as referring to a plural amount of apples.

(23)

a) I ate the apple.

b) I ate the apple**s**.

This contrasts with modifiers, which are not instantiations of inflectional categories. Because modifiers need not be overtly expressed, unmarked forms are not associated with a specific meaning.

(24)

a) I ate the apple.

b) I ate the **red** apple.

Thus in (24)a) above, while the colour of the noun *apple* is not overtly marked as it is in (24)b), the lack of colour marking need not be associated with a specific meaning, like non-redness, for example. It is merely the case that the noun *apple* in (24)a) is not specified or unmarked for colour. In this case, it is perfectly possible to imagine that the apple referred to in (24)a) is red.

Tense in English patterns like number marking in that it must be overtly expressed in order for an utterance to be grammatical. The past tense is overtly marked with the past tense morpheme *–ed*, while present tense is marked with a zero-morpheme -∅. The lack of overt past tense marking is obligatorily interpreted with a specific meaning non-past. Thus the unmarked form in (25)a) cannot be interpreted as past[11].

[10] Abstracting away from irregular forms.
[11] Abstracting away from the use of present-tense in story-telling or narrative contexts.

(25)

a) I walk to the store.

b) I walk**ed** to the store.

As it is, not all languages display the same tense-marking properties as English. Ritter & Wiltschko show, in particular that tense-marking in Blackfoot and Upriver Halkomelem patterns as if it were not an inflectional category. Unlike English, utterances unmarked for tense are not interpreted with a specific meaning; they can be interpreted as either past or present. This is illustrated below in (26) for Blackfoot (Bf), and in (27) for Upriver Halkomelem (Hk).

(26)

a) *kit-ána* *aasáí'ni-wa*
2-daughter cry.vai-3SG
i) 'Your daughter cried' (cf. Frantz 1991: 36(v))
ii) 'Your daughter is crying.'

b) *nít-sspiy-ihpinnaan*
1-dance.vai-1PL
i) 'We danced' (cf. Frantz 1991: 36(x))
ii) 'We are going to dance.'
(Bf; Ritter & Wiltschko 2004:3)

(27)

a) *Yéthe-st-éxw-chexw*
tell-cause-3o-2SG.S
i) 'You told him.'
ii) 'You tell him.'

b) *é-sth-àlèm*
good-caus-pass
i) 'I was liked.'
ii) 'I am liked.'
(Hk; Galloway 1993:317, cited in Ritter & Wiltschko 2004:2)

Observations like these form the root of the claim that such languages lack the inflectional category tense – that they are "tenseless". The question then arises as to how to represent this empirical generalization within the Principles and Parameters framework. Ritter & Wiltschko posit two different possibilities. One possibility is that the observations are a reflection of a deep underlying difference between the syntactic structure of tensed languages like English on the one hand, and tenseless languages like Blackfoot and Halkomelem on the other hand. That is, where languages like English project a functional category T, languages like Blackfoot and Halkomelem do not. This is laid out in (28)i) below. The second option is that the difference is superficial, and that the observations do not reflect any deep underlying difference as to the functional categories projected. Two different approaches to this option are laid out in (28)ii) below:

(28) Formalizing "tenselessness" (Ritter & Wiltschko 2004:3)

i) *The tenseless approach*: Languages differ as to whether or not they project a functional category T(ense) (see Shaer 1992, 1997 for West Greenlandic Eskimo, Wiltschko 2003 for Halkomelem)

ii) *The universal tense approach* – All languages have the functional category T, languages differ in the morpheme inventory associated with such a head. There are at least two versions of this analysis:

   i. T can be filled by an empty vague morpheme with an interpretation that subsumes present and past tense (Matthewson 2003 for Lillooet)

   ii. T can be filled by an empty expletive morpheme, and the temporal interpretation of the clause is determined contextually (Borer 2005)

Ritter & Wiltschko (2004) argue that the tenselessness observed in Blackfoot and Upriver Halkomelem follows from the first option - an absence of the functional projection TP[12]. In the following subsections I present their motivation for their claim.

2.1 The Lack of Syntactic Tense in Blackfoot

If tenseless languages lack the functional projection TP, then this structural difference should be reflected in more than just the lack of inflectional tense. If TP is not projected, then the languages in question should be devoid of all properties associated with both

i) the functional head T, and

ii) the specifier position [spec,TP].

Ritter & Wiltschko (2004) argue that this is the case for both Blackfoot and Halkomelem. For my purposes, I focus on their arguments for Blackfoot.

2.1.1 The Absence of T

Ritter & Wiltschko (2004) present the following as points of evidence for the lack of a functional head T[13]. First, as mentioned previously, they show that there are no inflectional [± past tense] distinctions. Second, they show that Blackfoot makes no distinction between tensed and non-tensed clauses (eg. infinitival clauses.) I illustrate each of these phenomena in turn.

No inflectional [±past] tense distinctions in Blackfoot

Traditional grammars of Blackfoot present the language as having a lack of inflectional tense distinctions. Uhlenbeck (1938) states that Blackfoot "…possesses neither a true tense-system nor a true aspect-system," and Ritter (2007) notes that Taylor (1969) lists only aspectual and modal preverbs. Frantz (1991), however, presents a set of verbal prefixes as instantiations of tense morphemes.

[12] Note that this does not entail that Blackfoot is lacking in functional projections – Ritter & Wiltschko eventually argue that Blackfoot has a syntactic projection parallel to TP in English, except that it is substantiated not with temporal content. See section 2.2 for details.

[13] Note that I do not present all of their arguments; see Ritter & Wiltschko 2004 for all their arguments.

Assuming that the relevant inflectional distinction encoded on T is a simple [±past] distinction[14], Ritter & Wiltschko address only Frantz's proposed past tense constructions.

Frantz presents four different ways to indicate past-tense, summarized below.

(29) Past-tense formation in Blackfoot, Simplified from Frantz (1991:36)[15]

i) Simple absence of both the durative aspect and future prefixes

ii) Replacement of a stem-initial vowel by *ii-*, or if the stem begins in a consonant, addition of an *ii-*, usually long, before the consonant.

iii) For a small subset of stems beginning with sV or ICV, replacement of the initial sequence by sayV or CayV, respectively.

iv) In the Blackfoot Reserve dialect only, add *ná-*

Of these, Ritter & Wiltschko (2004) show that cases i) and ii) are compatible with both past *and* present interpretations. This was shown previously in (26) above, reproduced below in (30). These examples show that utterances with a lack of durative or future prefixes can be read with both a past and present temporal interpretation[16]. (30)b) shows that forms that have replaced the stem-initial vowel with *ii-* can likewise be read with both a past and present temporal interpretation.

(30)

a) *kit-ána* *aasáí'ni-wa*
2-daughter cry-3SG
i) 'Your daughter cried' (cf. Frantz 1991: 36(v))
ii) 'Your daughter is crying.'

[14] They assume, as do I, that future tense is akin to a modal (cf. Condoravdi 2001, Copley 2002), and abstract away from it.
[15] These are greatly simplified; there are several restrictions, not well understood, to these formations. See Frantz for a complete description.
[16] However, see Reis-Silva & Matthewson (2007) for arguments against this claim.

b) *nít-sspiy-ihpinnaan*
1-dance-1PL
i) 'We danced' (cf. Frantz 1991: 36(x))
ii) 'We are going to dance.'

(Ritter & Wiltschko 2004:3)

(31)

amo	*aakíí-wa*	*ii-hpómaa-wa*	*ónniki-yi*
DEM	woman-3S	past?-buy.vai-3S	milk-3S'

'This woman bought milk.' (cf. Frantz 1991:36 (w))
OR 'This woman is buying milk.'

(Ritter & Wiltschko 2004:3)

Ritter & Wiltschko also highlight Frantz's generalization that most verbs allow several different ways to mark past-tense (Frantz 1991:36). This is illustrated with the examples below:

(32)

a)
i) *nitókska'si*
nit-ókska'si
1-run.vai
'I ran'

ii) *nits**íí**kska'si*
nit-**ii**-ókska'si
1-**past**?-run.vai
'I ran'

b)

i)	*oma*	*píítaawa*	*ipóttaawa*
	om-wa	piitaa-wa	ipottaa-wa
	DEM-3S	eagle-3S	fly.vai-3S

"The eagle flew"

ii)	*oma*	*píítaawa*	*payóttaawa*
	om-wa	piitaa-wa	Cay-ipottaa-wa
	DEM-3S	eagle-3S	**past**?-fly.vai-3S
	"The eagle flew"		

iii)	*oma*	*píítaawa*	***ná****ípóttaawa*
	om-wa	piitaa-wa	**ná**-ipottaa-wa
	DEM-3S	eagle-3S	**past**?-fly.vai-3S
	"The eagle flew"		

(Frantz 1991:36)

(32)a) shows that both the unmarked form of 'run' in i), as well as the overtly marked form of 'run' in ii), are both well-formed utterances compatible with a past-interpretation. (32)b) shows the same phenomenon with the verb 'fly', except that there are two acceptable ways to overtly mark an utterance that is compatible with a past-interpretation. These examples show that these methods of marking past-tense in Blackfoot are optional – they pattern more like modifiers than instantiations of a dedicated inflectional category.

Ritter & Wiltschko leave a full investigation of method iii) up to future research, and as such I do not address it here. As for method iv), the morpheme *ná-*, here I diverge in analysis from Ritter & Wiltschko. I address this morpheme in chapter five.

No tensed/non-tensed (infinitival) distinction in Blackfoot

The distinction between [±past] is not the only distinction that can be associated with the syntactic head T; T can also make a distinction between tensed (either past, or non-past) clauses on one hand, and between non-tensed (infinitival) clauses on the other hand. If Blackfoot lacks the syntactic head T, as proposed by Ritter & Wiltschko (2004), this predicts no tensed/non-tensed distinction – i.e., the lack of infinitival clauses.

Ritter & Wiltschko (2004) show that this is indeed the case – they quote Frantz who states that Blackfoot has prefixes[17] "the equivalents of which in most other languages would be verbs which take embedded clauses" (Frantz 1991:88, cited in Ritter & Wiltschko 2004:20). They provide the following list in (33); examples of the use of these prefixes are provided in (34) and (35):

(33)

ohkott – 'able'
ssáak – 'try'
yaahs – 'like, enjoy/be pleased by'
iksistt – 'finish'
mato~oto – 'go to do'

(34)

nitáyaahsoyi
nit-á-yaahs-Ioyi
1-IMPF-pleasing-eat.vai
'I like to eat.'

(Frantz 1991:89)

(35)

áissáaaka'pota'kiwa
á-ssáak-a'po'taki-wa
IMPF-try-work-3S
'He is trying to work.'

(Frantz 1991:89)

Thus in cases where a language like English would require a matrix verb and an embedded infinitival clause, Blackfoot relies instead on a prefix to convey the meaning of what in English would be a matrix verb, and a normally inflected verb to convey what in English would be an infinitival clause. Ritter & Wiltschko note that Blackfoot can also make use of a bi-clausal structure, where the embedded clause takes conjunctive morphology - this is shown in (36) below. Note, however, that in such cases the

[17] These "prefixes" fit into the "preverbs" slot of the verbal template. Recall from chapter one:
PERSON– (NEG, Y/N) – **(PREVERBS)** – [VERB STEM INITIAL-(MEDIAL)-FINAL] – DIR/INV – PERSON/# –3 #/GEN

embedded clause does not behave like an infinitive - like an independent clause, the embedded verb has inflectional morphology (Ritter & Wiltschko 2004:21).

(36)

nitsíksstaa	**n**ááhksoyssi
nit-ik-sstaa	**n**-ááhk-ooyi-hs-yi
1-ints-want	**1**-n.fact-eat.vai-CJ-CJ.S
'I want to eat.'	

(Frantz 1991: 112)

Recall the possibilities for formalizing the observed lack of inflectional tense within the Principles and Parameters framework:

(37) Formalizing "tenselessness" (Ritter & Wiltschko 2004:3)

i) *The tenseless approach*: Languages differ as to whether or not they project a functional category T(ense) (see Shaer 1992, 1997 for West Greenlandic Eskimo, Wiltschko 2003 for Halkomelem)

ii) *The universal tense approach* – All languages have the functional category T, languages differ in the morpheme inventory associated with such a head. There are at least two versions of this analysis:

   i. T can be filled by an empty vague morpheme with an interpretation that subsumes present and past tense (Matthewson 2003 for Lillooet)

   ii. T can be filled by an empty expletive morpheme, and the temporal interpretation of the clause is determined contextually (Borer 2004)

While Ritter & Wiltschko concede that the universal tense approach can account for the fact that an unmarked clause may be interpreted as either past or present, they note that under such an approach the absence of a tensed/non-tensed distinction (i.e., the absence of infinitival constructions) would have to

be chalked up to an unrelated coincidence. Under the tenseless approach, on the other hand, both the lack of a past/non-past distinction, and a tensed/non-tensed distinction, fall out from a unified analysis.

2.1.2 The absence of specTP

Under the Principles and Parameters framework, it is commonly assumed that syntactic heads are associated with phrasal specifier positions. Now, if the lack of inflectional tense in Blackfoot falls out from the lack of a syntactic T head, as proposed by Ritter & Wiltschko's tenseless approach, this would entail that Blackfoot likewise lacks a phrasal [spec, TP] position – the position commonly associated with nominative case and grammatical subjects. Ritter & Wiltschko argue Blackfoot shows evidence for this - that external arguments in Blackfoot do not map to a grammatical subject position, and that Blackfoot lacks case/EPP-driven A-movement.

The lack of grammatical subjects and nominative case

A common assumption in the syntactic literature is that nominative case is associated with the specifier position of a finite TP[18]. Thus non-finite clauses cannot assign nominative case to their subjects as shown below in (38).

(38)

a) He_{NOM} $\text{saw}_{\text{+tensed}}$ a bear.

b) *I want [he_{NOM} $\text{to}_{\text{-tensed}}$ see a bear.]

(Ritter & Wiltschko 2004:5)

[18] A point brought to my attention by Duk-Ho An is that nominative case in several languages could be analyzed as more strongly associated with a finite T head, as opposed with the specifier position. Chomsky 2000, for example, argues that not all nominative-marked nominals sit in [spec, TP] – he assumes that the associate in a there-expletive construction takes nominative case:

(1) a) There was once **a King.** (English)
b) Es war einmal **ein(*en) König**. (German)

Note, however, that English data lacks morphological evidence as to whether the associate nominal is truly nominative – and in fact, the following data from Boškovic 2002 suggests that the associate in there-expletives are actually not marked nominative.

(2) There's always **him/*he.** (Boškovic 2002:192 fn 35)

As I am primarily interested in the distinction between English and Blackfoot, I abstract away from data like the German, and whether nominative case is more properly associated with the head or specifier position of a finite TP. In any case, either option suffices for the purposes here, as Ritter & Wiltschko argue for the lack of the entire TP projection.

If Blackfoot lacks the entire phrasal projection TP, Ritter & Wiltschko argue, then Blackfoot should show no effects of nominative case. They show that full DPs in Blackfoot show no evidence of morphological case[19] – in (39) below, the full DP *nohkówa* 'my son' has the same form whether it corresponds to the subject or object.

(39)

a)	*ikakomimmiiwa*	***nohkówa***	*kitani*
	ik-waakomimm-yii-wa	**n-ohkó-wa**	k-itan-yi
	ints-love.vta-3>3'-3S	**1-son-**3S	2-daughter-3'S
	'My son loves your daughter.'		
b)	*otsikákomimmokwa*	***nohkówa***	*otáni*
	ot-ik-waakomimm-ok-wa	**n-ohkó-wa**	ot-itáni-yi
	3'-ints-love.vta-3'>3-3S	**1-son-**3S	3-daughter-3'S
	'Her daughter loves **my son'**		

(Frantz 1991:53-56, cited in Ritter & Wiltschko 2004:5)

They note that while this evidence is not conclusive[20], there is further evidence that Blackfoot lacks a dedicated position for grammatical subjects; *viz.* the lack of EPP-effects and case-driven movement.

The EPP is another phenomenon associated with the [spec,TP] position. The EPP, or Extended Projection Principle, basically states that the position [spec,TP] must be filled. Thus in English, when a sentence lacks a thematic subject, one method of satisfying the EPP is expletive-insertion, as in (40).

[19] Another point brought to my attention by Duk-Ho An is that in order for morphological case to be completely lacking, Blackfoot would have to lack other case-assigning categories as well. I argue in Chapter Three that the functional phrase responsible for accusative case, which I assume to be AspP, is, like TP, lacking in Blackfoot, its function likewise being performed by a syntactically parallel Participant node. As for whether Blackfoot lacks the case-assigning categories PP, this is a matter for future research. While Blackfoot does not have traditional adpositions, it does has verbal-complex-internal morphemes which, like adpositions, license non-argument nominals. Whether or not these are of the category P is a question for further research.

[20] Note that the English equivalents also show no sign of morphological nominative case, as English only shows a morphological reflex of nominative case in its personal pronoun inventory. As a note, Blackfoot personal pronouns are only used for emphatic purposes; they are formed using possessive morphology and an animate gender nominal stem *iistó,* and they inflect for obviation like regular nominals (Frantz 1991:73-74). Because they do not appear to pattern differently from regular nominals, it is thus difficult to determine whether Blackfoot's personal pronouns constitute a proper measure against which to compare the personal pronouns of English.

(40)

a) **It** is raining

b) **It** seems that this sentence has a subject.

(Ritter & Wiltschko 2004:6)

Blackfoot, on the other hand, appears to lack expletive subjects[21]:

(41)

a) *áísootaa*
á-sootaa
IMPF-rain
'it's raining'

b) *ííkssoka'piiwa otáísootaahsi*
iik-soka'pii-waot-á-sootaa-hs-yi
very-good-3s 3-IMPF-rain-CJ-CJ
'It is good that it is raining.'

(Ritter & Wiltschko 2004:6)

The lack of subject expletives is expected under a tenseless analysis – assuming that there is no functional projection TP, there would be no [spec,TP] that needs to be filled. The lack of EPP, and lack of expletive pronouns follow.

Another method of satisfying the EPP is A-movement. If a sentence lacks a thematic subject (i.e., an external argument), then an internal argument, or the external argument of an embedded predicate may raise to satisfy the EPP. If Blackfoot lacks the [spec, TP] A-position, then one would predict that Blackfoot would have no such instances of Case/EPP-driven A-movement, just as it has no instances of expletives.

[21] As a note, Boškovic 2002 argues that the data in (40) can be analyzed as falling out from the Inverse Case Filter (Boškovic 1997), as opposed to an due to an EPP requirement. He argues, in fact, that the EPP should be eliminated as a theoretical device in general, the illusion of an EPP requirement falling out from either the Inverse Case Filter, or locality restrictions on movement. Under these assumptions, the fact that Blackfoot lacks expletives, as well as the rest of the arguments in this section, can instead be viewed as additional evidence that Blackfoot lacks a traditional nominative/accusative Case-checking system, and thus evidence that Blackfoot lacks a traditional functional phrase TP like English, where I assume Case-checking systems to be (partly) driven by uninterpretable features on TP (cf. Pesetsky & Torrego 2001, 2002).

The absence of Case/EPP-driven A-movement*: *No Raising, No Passive

Ritter & Rosen (2005) argue that while there are phenomena in Algonquian languages that appear parallel to A-movement, these phenomena are better off analyzed as instances of A'-movement. They address phenomena which appear to be instances of Passive, and also a phenomenon that appears to be parallel to raising constructions. They address first Cross-Clausal-Agreement, or CCA, which has been paralleled to raising constructions (Frantz 1978)[22].

CCA refers a phenomenon where the matrix clause shows agreement with an argument of the embedded clause – this is shown for Innu-aimûn in (42) and (43) below. In (20a), there is no cross-clausal agreement. In (20b) the matrix clause shows cross-clausal 3pl agreement, where the only 3pl argument is the subject of the embedded clause[23].

(42) Innu-aimûn

a)	*ni-tsisshenitamu-ânân*	*mûpishtuât*	*Shûshepa*	*Tshân*	*mâk*	*Mânî.*
	1PL-know-TI-1PL	visit	Joseph	John	and	Marie
	'We know that John and Marie visited Joseph'					

b)	*ni-tsisshenitamu-ânân-**at***	*mûpishtuât*	*Shûshepa*	*Tshân*	*mâk*	*Mânî.*
	1PL-know-TI-1PL-**3PL**	visit	Joseph	John	and	Marie
	'We know that John and Marie visited Joseph'					

(Branigan & Mackenzie 2002:388(3), cited in Ritter & Rosen 2005)

(21) shows the same phenomenon, except that the matrix-clause shows agreement with the object of the embedded clause:

[22] Frantz specifically remarks that CCA is similar to ECM (Exceptional Case Marking) cases.

[23] CCA is optional (in the sense that the speaker does not need to use it in order for the sentence to be grammatical, not optional in the sense that it is an optional movement operation in the derivation as per traditional analyses of Japanese-style scrambling), and it does not affect the form of the embedded clause; rather it is the form of the matrix clause that is affected. Where verbs that select clausal complements are usually TI (transitive inanimate) verb forms, when CCA occurs, the matrix verb takes a TA (transitive animate) form instead (Ritter & Rosen 2005:649).

(43) Innu-aimûn

a)	*ni-tshissît-en*	*kâ-uîtshi-shk*	*Pûn*	*utâuia*
	1-remember-TI	PRT-helped-3/2PL	Paul	father
	'I remember that Paul's father helped you.'			
b)	***tshi-****tshissît-****âtin***	*kâ-uîtshi-shk*	*Pûn*	*utâuia*
	2-remember-**1/2PL**	PRT-helped-3/2PL	Paul	father
	'I remember that Paul's father helped you.'			

(Branigan & Mackenzie 2002:388(4), cited in Ritter & Rosen 2005)

Below I provide some CCA data from Blackfoot – in (44)b), the matrix verb bears 3sg agreement, although the only 3sg argument available is the subject of the embedded verb.

(44)

a)	*nitsíksstaa*	*nohkówa*	*máhka'po'takssi*
	nit-ik-sstaa	n-ohkó-wa	m-áhk-a'po'taki-hs-yi
	1-ints-want.vai	1-son-3S	3-n.fact-work.vai-CJ-CJ
	'I want my son to work.'		
b)	*nitsíksstata****wa***	*nohkówa*	*máhka'po'takssi*
	nit-ik-sstataa-**wa**	n-ohkó-wa	m-áhk-a'po'taki-hs-yi
	1-ints.want.vta-**3S**	1-son-3S	3-n.fact-work.vai-CJ-CJ
	'I want my son to work.'		

(Frantz 1978:89, modified glosses mine)

CCA, a phenomenon in which an element of an embedded clause is associated with the matrix clause, thus looks parallel to raising constructions in English. This familiar phenomenon is demonstrated in (45):

(45) Mélissa appears [$_{TP}$ ~~Mélissa~~ to take the subway]

While *Mélissa* thematically appears to be the subject of the embedded verb, it raises to become the subject of the matrix verb. This is commonly analyzed as falling out from the fact that the non-finite embedded verb cannot assign/check nominative case for its subject. Thus the embedded subject must raise out of its clause to be assigned case (or have its case-feature checked)[24].

Ritter & Rosen (2005) note that the similarity between CCA and raising constructions in English thus might lead one to analyze CCA as an instance of A-movement.

(46) Possible Structural Parallel between CCA and Raising (A-Movement)

English:

Raising: [CP….. SUBJECT [TP$_{NON\text{-}FINITE}$ ~~SUBJECT~~ …]]

Non-Raising: [CP……..[TP$_{FINITE}$……...]]

Blackfoot:

CCA: [CP….. Agreement [TP… SUBJECT/OBJECT]]

Non-CCA: [CP……..[TP……..]]

[24] As is also well known, this phenomenon also includes subject-to-object raising:

(3) Mélissa expects **me** [$_{TP}$ ~~me~~ to visit her]

While *me* thematically appears to be the subject of the embedded verb, it nonetheless receives accusative case from the matrix verb. This is commonly analyzed as falling out from the fact that the non-finite embedded verb cannot check the assign a nominative case feature to its subject. Thus the embedded subject must raise out of its clause to be assigned accusative case by the matrix verb. Note, however, that Ritter & Wiltschko's analysis does not predict the lack of object-raising in Blackfoot. Although they predict the lack of A-movement to the grammatical subject position [spec,TP], their account does not predict anything about A-movement into a direct-object position (which, depending on your theoretical preferences, this could be [spec, AgrOP], [spec, AspP], [spec, vP], etc.). Likewise, while their analysis predicts a lack of nominative-case-driven movement, their analysis does not predict a lack of accusative-case-driven movement. As mentioned in a previous footnote, in chapter three I expand Ritter & Wiltschko's analysis and suggest that the general lack of case-driven movement may fall out from the lack of both nominative-case assigning TP and accusative-case assigning AspP.

They cite, however, Branigan & Mackenzie (2002), who argue that CCA is an instance of A'-Agreement, as opposed to A-Agreement. Branigan & Mackenzie (2002) list several different ways in which CCA differs from raising constructions. I discuss here some of the phenomena which are relevant for Blackfoot. First, while raising constructions are generally analyzed as being driven by case or EPP motives, CCA is motivated by discourse principles. Branigan & Mackenzie note that CCA triggers in Innu-aimûn must either be a wh-phrase, a focused DP, or a topicalized DP. This appears to also be the case for Blackfoot. In (47) below, the difference between (47)a) which lacks CCA, and (47)b) which has CCA, appears to be that the element which triggers the cross-clausal agreement in (47)b) is a topic.

(47)

a)	*iihtsimaawa*	*nitákkaawa*	*nitsaákiaopissi*
	ii-ohtsimaa-wa	nit-ákkaa-wa	nit-saaki-á-opi-hs-yi
	?-hear.vai-3S	1-friend-3S	1-still-IMPF-sit.vai-CJ-CJ
	'My friend heard that I'm home.'		
b)	***nit****ohtsimakka*	*nitákkaawa*	*nitsaákiaopissi*
	nit-ohtsimat-ok-wa	nit-ákkaa-wa	nit-saaki-á-opi-hs-yi
	1-hear.vta-3>loc-3S	1-friend-3S	1-still-IMPF-sit.vai-CJ-CJ
	'My friend heard (about me) that I'm home.'		

(Frantz 1978:96, modified glosses mine)

Likewise, in (48) below, Frantz notes that it seems that the choice of using CCA to index the object rather than the subject "serves to highlight the object." (Frantz 1978:100).

(48)

nít*ssksinooka*	*kínna*	*kitakomímmokssi*
nit-ssksino-ok-wa	k-ínn-wa	kit-akomímm-ok-hs-yi
1-know.vta-3>loc-3S	2-father-3S	2-love.vta-3>loc-CJ-CJ
'Your father knows you love me.'		

(Frantz 1978:100, modified glosses mine)

Further evidence comes from embedded questions. The data in (49) shows that while CCA is usually optional, in Blackfoot it is obligatory with embedded questions "which deal with identification of the subject or animate object of the embedded verb." (Frantz 1978:103).

(49)

a)	**nitssksiniihpa*	*annáhka*	*kitóhtoawahka*
	nit-ssksinii-hpa	ann-wáhk-wa	kit-óhtoawah-ok-wa
	1-know.vai-1>0	DEM-one-3s	2-hear.vta-3>loc-3s
b)	*nítssksinoa**wa***	*annáhka*	*kitóhtoawahka*
	nit-ssksino-a-**wa**	ann-wáhk-wa	kit-óhtoawah-ok-wa
	1-know.vta-1>3-**3s**	DEM-one-3s	2-hear.vta-3>loc-3s
	'I know who/what(anim.) you heard.'		

(Frantz 1987:103, modified glosses mine)

Thus, CCA in Blackfoot seems driven by discourse principles, such as topic and focus, as opposed to Case or EPP-related principles. As further evidence to this effect, Branigan & Mackenzie (2002) note that that CCA, unlike raising constructions, can target either the embedded subject, or the embedded object, or even an embedded instrument. The relevant data for Blackfoot is below:

(50) CCA targets embedded subject

*nitssksinoannaan**iawa***	*otáyaaki'ni'ssaawa*	
nít-ssksino-a-nnaan-**iawa**	ot-áyaak-i'ni-'ss-aawa	
1-know.vta-1>3-1PL-**3**PL	3'-FUT-die.vai-CJ-3PL	
'We know they are dying.'		

(Frantz 1978:92)

(51) CCA targets embedded object

***nít**ssksinooka*	*kínna*	*kitakomímmokssi*
nit-ssksino-ok-wa	k-ínn-wa	kit-akomímm-ok-hs-yi
1-know.vta-3>loc-3s	2-father-3s	2-love.vta-3>1/2-CJ-CJ
'Your father knows you love me.'		

(Frantz 1978:100, modified glosses mine)

(52) CCA targets embedded instrument[25]

a)

nitaíksim'sstatoohpi	***omúistsi***	***miistsúistsi***
nit-á-**iksim'sstatoo**-**hpi**	**om-istsi**	**miistsi-istsi**
1-IMPF-**think.vti**-**1>0**	**DEM-0pl**	**stick-0PL**

*káhk**oht**awaayákiookoohsi*

k-áhk-**oht**-awayáki-ook-oo-hsi

2-n.fact-**means**-hit.vta-3>1/2-?-?[26]

'I expect the sticks to hit you.'

b)

nitaíksim'sstaa	***omúistsi***	***miistsúistsi***
nit-á-iksim'ssta	**om-istsi**	**miistsi-istsi**
1-IMPF-think.vai	**DEM-0PL**	**stick-0PL**

*kahk**oht**awaayákiookoohsi*

k-áhk-**oht**-awayáki-ook-oo-hsi

2-n.fact-**means**-hit.vta-3>1/2-?-CJ

'I expect the sticks to hit you.'

(Frantz 1978:100, modified glosses mine)

Thus in (50) above, the matrix clause shows 3pl agreement, where the only 3pl argument available is the subject of the embedded clause. In (51), where the matrix clause shows 1st person agreement, the

[25] Frantz notes that CCA with an embedded instrument is rare, however it is possible.
[26] I am not sure what the proper gloss here should be; Frantz glosses it as follows:

oo-hsi
x-conj

where I assume 'conj' stands for 'conjunct morphology', which in this paper I gloss as CJ. He does not state what the 'x' stands for.

only 1st person argument is the object of the embedded clause. And in (52), the matrix clause is inflected for a inanimate plural object, where the only inanimate plural object is the instrument of the embedded clause, indicated by the 'means' morpheme linker *oht* and the overt nominal 'those sticks' *omíistsi miistsíistsi.*

To summarize, while CCA at first appears like a candidate for Case-driven A-movement in Blackfoot, and therefore problematic for Ritter & Wiltschko (2004)'s TP-less analysis, Ritter & Rosen conclude that CCA is better accounted for with an A'-analysis. The other candidate for Case/EPP-driven A-movement in Algonquian is Passive. Two types of constructions in Algonquian have been argued as analogs of Passive: the first is active transitive clauses with obligatorily non-specific or unspecified agents, argued by Dahlstrom 1991, and the second is transitive clauses marked with inverse-theme markers. Because Dahlstrom's motivation for analyzing non-specific/unspecified-agent clauses in Plains Cree as Passive does not hold in Blackfoot, I do not address it here in detail[27]. The other candidate for a passive construction is transitive clauses marked with inverse-theme markers. First I present a review of what inverse-clauses are, and then I provide the arguments why they should not be analyzed as instances of Case-driven passives.

Recall that transitive verbal complexes in Blackfoot (and in Algonquian in general) indicate event participants in two places – a prefixal position, and a suffixal theme marker. The prefix always

---

[27] Dahlstrom analyzes the unspecific construction in Plains Cree as a passive-construction based on its interaction with CCA phenomena. In Plains Cree, the unspecified construction is marked with the same morphological agreement as a clause with a 2nd person subject acting on a first person object, but lacks the personal prefixes associated with a 2nd person subject. Dahlstrom notes that in Plains Cree, the CCA target can only be the subject of the embedded clause. This is shown by the data below - while CCA can target the embedded subject in a), CCA targeting the embedded object in b) is ungrammatical:

(4)

a) *niskike:yima:w George e:=sa:ki-a:t okosisa*
know.vta-1-2[dir]George love3-obv/conj[dir] his son [obv]
'I know George loves his sons.'

(Dahlstrom 1991:72 (32), cited in Ritter & Rosen)

b) **nikiskeyim**ima:**wa George e:=sa:kia:t okosisa*
know.vta-1-**obv[dir**] George love3-obv/conj[dir] his son obv
'I know George loves his sons.'

(Dahlstrom 1991:72 (33), cited in Ritter & Rosen:651)

However, when an unspecified construction is embedded, only the underlying object can be the target of CCA. Dahlstrom argues that if the unspecified construction is analyzed as a passive, then the restriction on the CCA can be easily generalized such that the CCA can only target surface subjects.

agrees in person with the argument that is higher on the person-animacy hierarchy, repeated below in (53), regardless of whether that argument is the actor or patient.

(53) Person-Animacy Hierarchy

LOCAL PERSONS 2,1 > 3RD PERSONS PROXIMATE > 3RD PERSON OBVIATIVE > INANIMATE

Whether the prefix corresponds to the actor or patient is disambiguated by the theme marker. The theme marker indicates the person with the other argument, and may fall into one of two categories: direct, or inverse. A direct theme marker indicates that the actor is higher on the person-animacy hierarchy than the patient. An inverse theme marker indicates that the actor is lower on the person-animacy hierarchy than the patient. With respect to interactions between third-persons, this means that the inverse construction is used when the actor is less contextually salient than the patient, and thus often translates as a passive. Ritter & Rosen allow that if the person prefix is analyzed as a subject-agreement marker, then the inverse theme marker could plausibly be analyzed as passive-morphology. As per the goal of their paper, however, they provide several arguments against analyzing the inverse construction as a Case-driven passive construction. They cite Wolfart (1991) who observes that inverse constructions are marked with transitive morphology - the verb obligatorily inflects for both the agent and patient. If the inverse were an instance of a English-style Case-driven passive, where the agent argument is suppressed, we would the verb to obligatorily inflect only for the patient argument. Wolfart further notes that the choice between whether to express an event through an inverse-clause or a direct-clause is determined by the person/animacy of the arguments involved. Events denoting third-persons acting on speech-act participants can only be expressed via inverse-clauses, and events denoting speech-act participants acting on third-persons can only be expressed via direct-clauses. This would be a highly atypical property of traditional Case-driven passive constructions. With these facts, Ritter & Rosen dismiss inverse-clauses as instances of Case-driven passives[28].

To summarize, Ritter & Wiltschko (2004) note that under their tenseless analysis, the lack of inflectional tense marking, lack of infinitival constructions, lack of nominative case effects and

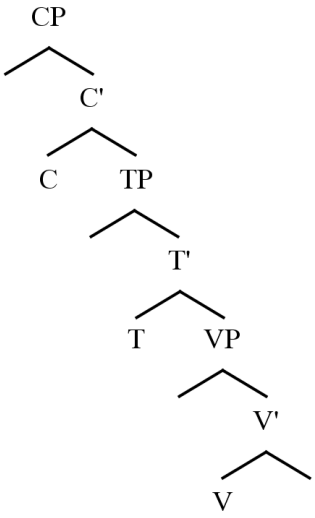
[28] Ritter & Rosen also address Bruening's (2001) proposal that the inverse in Passamaquoddy is a passive-like A-movement to a functional HP projection. I do not address it here, however, because I am only interested in movement that provides evidence directly related to the presence or absence of TP (where here I assume the lack of Tense correlates with the lack of a traditional Case-checking system), as opposed to whether or not there is A-Movement in Algonquian. Ritter & Rosen (2005) argue that the target of movement in Bruening's HP is better analyzed as an A'-position, but see their paper for the full argument.

case/EPP-driven A movement in Blackfoot all fall out from one unified analysis. Under the universal tense approach, they argue, the lack of infinitival constructions, nominative case effects and Case/EPP-driven A movement must fall out from other, unconnected, proposals.

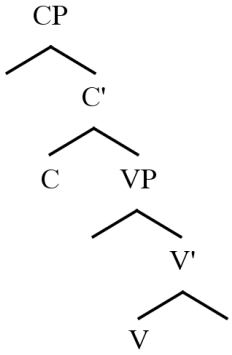
A important note is that while Ritter & Wiltschko (2004) conclude that Blackfoot lacks the syntactic node Tense, i.e.- the functional projection that grammatically encodes the distinction between past- and present-tense, they do not mean to say that Blackfoot clause-structure is somehow impoverished in functional projections. That is, they do *not* propose that where English has more articulated structure as in (54)a), Blackfoot has a less articulated structure as in (54)b)[29]:

(54)

a) English clause-structure



b) ≠ Blackfoot clause-structure



Ritter & Wiltschko (2005) assume that all languages have the universal grammatical category IP, however they propose that the content of Infl may differ cross-linguistically. Thus while Blackfoot and Halkomelem, like all languages, have Infl, Infl is not realized as T in these languages. In the following section I elaborate further on this proposal.

[29] These trees are only schematic. I am not making a claim as to the exact number and properties of functional heads present in either language.

2.2 The Universal Anchoring Condition

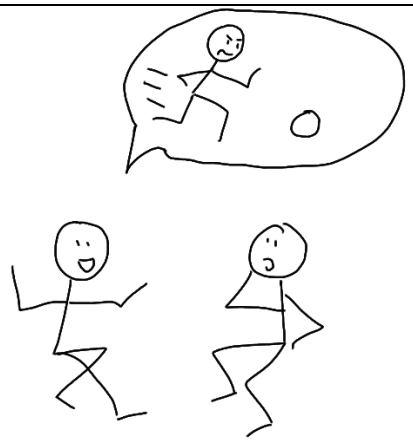
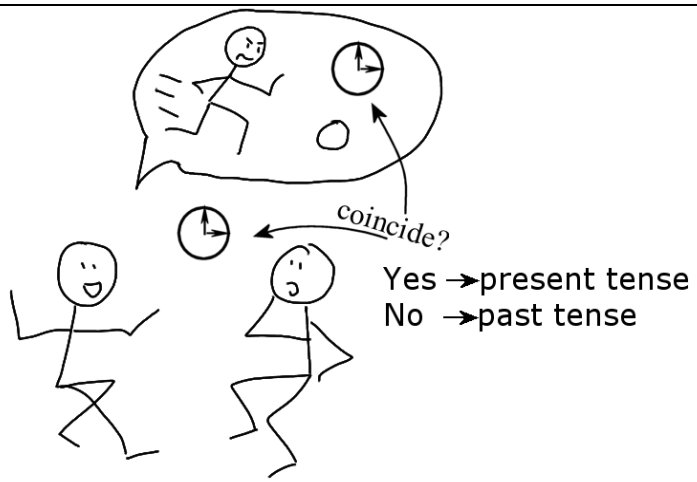
Ritter & Wiltschko (2005), following Enç (1987), assume that in main declarative clauses, all natural languages must adhere to what they term the "Anchoring Condition":

(?) The Anchoring Condition (Ritter & Wiltschko 2005: adapted from Enç 1987:642)

Events must be anchored to the utterance or some other salient reference point.

Following Zagona (1990) and Stowell (1995), they assume that in languages like English, this condition is fulfilled temporally, via TP and its temporal arguments. Tense is a two-place predicate of coincidence, in the sense of Hale 1986, and events are anchored to the utterance by relating the Event Time (EvT) to the Utterance Time (UttT). T either asserts that these two times coincide (present tense), or asserts that these two times do not coincide (past tense)[30]. This is represented below, schematically in (55), and formally as in Ritter & Wiltschko in (56).

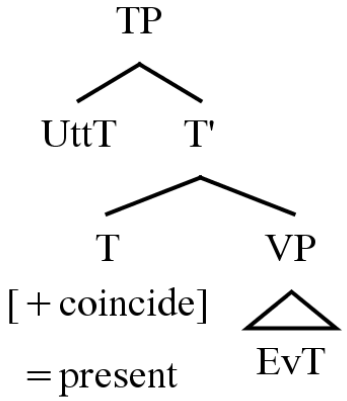
(55)

Event	Event-Anchoring via Tense
	

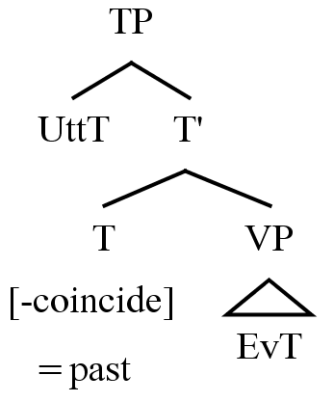
[30] For the most part, Ritter & Wiltschko abstract away from the future. They assume that future tense, while also an instance of non-coincidence, is more complex than present and past in that it introduces a modal component.

(56)

a) Konrad **<u>is</u>** playing the guitar



b) Mika danc**<u>ed</u>**



(Ritter & Wiltschko 2005:1)

The question that then arises is what happens if a language lacks the grammatical category Tense? Assuming the Anchoring Condition, how do languages that lack a TP anchor events to utterances?

Ritter & Wiltschko (2005) propose that the anchoring condition need not be satisfied *temporally* - the condition can also be satisfied via other deictic properties associated with the utterance. They identify two possible anchoring properties – *spatial* anchoring and *person* (or participant) anchoring. Ritter & Wiltschko thus propose that Infl is a universal grammatical category whose main function is to anchor events to utterances. The content of Infl, however, may vary cross-linguistically according to which deictic element of the utterance is used to anchor the event: the utterance time, the utterance place, or the utterance participants. They provide evidence of spatial anchoring – anchoring via the utterance place – for Upriver Halkomelem, and evidence of person anchoring – anchoring via the utterance participants – for Blackfoot. Again, I focus here on their proposal and arguments for Blackfoot.

2.2.1 Parallels between Tense in English and Person in Blackfoot

Ritter & Wiltschko (2007) propose that in Blackfoot, the person prefixes *nit-* and *kit-* are formally and functionally analogous to tense *(-s, -ed*[31]*)* in English. The basic proposal is that both *nit-*

[31] Of course, there are also irregular past forms in English. I abstract away from them here.

/kit- and tense morphemes *–s, -ed* are instantiations of Infl, the universal anchoring category. Now, as Ritter & Wiltschko (2007) suggest disengaging the temporal content from Infl, the question arises as to how one can recognize Infl. Ritter & Wiltschko (in prep.)suggest the following criteria:

i) Infl is unique,
ii) is obligatory,
iii) may lack phonetic content,
iv) may lack semantic content,
v) may move to COMP,
vi) may co-vary with COMP

Using these criteria, they argue that English tense-marking and Blackfoot person-marking syntactically pattern in the same way; both English tense-marking and Blackfoot person-marking fulfill i)-iii), and v)-vi)[32]. I summarize their arguments in the following subsections.

Infl is Unique

The first criteria the Ritter & Wiltschko address is the uniqueness of Infl - as is well-known, in English a clause may only be marked by morphological tense once. This is shown below in (57) – in (57)a) the main verb is marked for morphological tense, while in (57)b) the auxiliary verb is marked for morphological tense. Marking both the main verb and the auxiliary for tense is ungrammatical, as shown in (57)c):

(57) Tense marking in English is unique

a) Lyn play**ed** the piano.
b) Lyn **did** play the piano.
c) *Lyn **did** play**ed** the piano

Blackfoot, likewise, can only mark a clause with the person-prefixes once. Thus both (58)a) and (58)b) mark the clause for person – second person – once. Marking the clause for both second and first person

[32] They use criteria iv) as evidence for the parallel nature between Halkomelem's spatial morphemes and English tense marking – as it is not directly relevant for Blackfoot, I do not address it here.

as in (58)c) is ungrammatical, despite the fact that both first and second persons are the arguments of the predicate.

(58) Person marking in Blackfoot is unique

a) *Kitsikákomimmoki*
kit-ik-waakomimm-oki
2-ints-love.vta-2>1
'You love me'

b) *Kitsikákomimmo*
kit-ik-waakomimm-o
2-ints-love.vta-1>2
'I love you.'

c) *****Kit****(si)****nit****sikákomimmoki*
kit-**nit**-ik-waakomimm-oki
2-**1**-ints-love.vta-2>1
Target: 'You love me'

d) *****nit****(si)****kit****sikákomimmoki*
nit-**kit**-ik-waakomimm-oki
1-**2**-ints-love.vta-2>1
Target: 'You love me'

Ritter & Wiltschko thus note that Tense-marking and Person-marking in English and Blackfoot respectively pattern similarly in that both are uniquely marked.

Infl is Obligatory and may lack Phonetic Content

The second criteria for Infl that Ritter & Wiltschko address is its obligatoriness. Recall that in English, tense is obligatory; the lack of overt marking (i.e., phonetic content) is interpreted nonetheless with tense. Thus (59)a), with no overt marking, is nonetheless interpreted as present tense.

(59) Tense Marking in English is obligatory and may lack phonetic content

a) I walk-∅ to the store.

b) I walk**ed** to the store.

This is likewise the case with Blackfoot person marking. It is obligatory, and the lack of overt marking is interpreted as third person, as shown in (60)c):

(60) Person Marking in Blackfoot is obligatory and may lack phonetic content

a) ***nit****áítsiniki*
nit-á-itsiniki
1-IMPF-relate.vai
"I relate/am relating (a story)"

b) ***kit****áítsiniki*
kit-á-itsiniki
2-IMPF-relate.vai
"You relate/are relating (a story)"

c) *áítsinikiwa*
∅**-**á-itsiniki-wa
3-IMPF-relate.vai-3s
"he relates/is relating (a story)"

(Frantz 1991:16, modified glosses mine)

Note that in example c), the suffix *–wa* also marks a (proximate) third person. In elicitation, however, my language consultant frequently does not produce the –wa, and the sentence is nonetheless interpreted as third-person. Thus Tense marking in English, and Person marking in Blackfoot pattern similarly in that both are obligatorily marked, the lack of marking being obligatorily interpreted.

Infl may co-vary with Comp

The third criteria Ritter & Wiltschko (in prep.) address is the property of Infl to co-vary with Comp. They point out that the tense of an embedded clause in English co-varies with the subordinating complementizer - while the complementizer 'that' selects a tensed clause, the complementizer 'for' selects an untensed clause:

(61)

a) For Yumiko to buy the walnut cakes…
b) *That Yumiko to buy the walnut cakes…
c) *For Yumiko bought the walnut cakes…
d) That Yumiko bought the walnut cakes…

(Based on examples from Ritter & Wiltschko)

While there are no obvious complementizers in Blackfoot, assuming that clause-typing is encoded in C, Ritter & Wiltschko observe that person-marking in Blackfoot likewise co-varies with clause-type morphology. As shown in (62) below, Blackfoot clauses with subjunctive morphology lack the person prefixes:

(62) Blackfoot subjunctive lacks person marking

a) *áó'too**yiniki*** *áakitsoyo'pa*
a'-o'too-**yinik**i yáak-it-Ioyi-o'pa
INCH-arrive.vai-1S/2S(SUBJ) FUT-rel-eat.vai-21
'When you/I arrive, (then) we'll eat.'

b) *ikkamáyo'ka**inoainiki**,* *nitááhkahkayi*
ikkam-á-yo'kaa-**inoainiki** nit-yáak-wa:hkayi
if-IMPF-sleep.vai-2PL(SUBJ) 1-FUT-go.home.vai
'If you$_{2pl}$ are sleeping, I'll go home.'

c) *ikkamíni**mmiinnaaniki**,* *nitáaksowatoo'pinnaana*

ikkam-ini-**mmiinnaaniki** nit-yáak-Iowatoo-'p-innaana
if-see.vti-1PL(SUBJ) 1-FUT-eat.vti-1>0-1PL
'If we see it, we'll eat it.'

d) *ikkámssawohkók**kiiniki**,*
ikkam-saw-ohkot-**kiinik**i
if-NEG-give.vta-2S:1PL(SUBJ)

annáhka *nínnahka* *áakssko'tsimáyi*
an-wa-hka n-inn-wa-hka yáak-ssk-o'tsi-m-wa-áyi
DEM-3S-invs 1-father-3S-invs FUT-back-take.vti-3>0-3S-DTP
'If you don't give it to me, my father will take it back.'

(Frantz 1991:113)

Note that the English data in (63) is parallel – subjunctive clauses lack tense marking. [33]

(63) English subjunctive lacks tense marking

a) It is essential that Ailis **be(*is)** on time for class.
b) It is essential that Ailis **be(*is)** late for class.

Ritter & Wiltschko also note that this is also the case for imperative clauses in Blackfoot – imperative clauses lack person-prefixes.

(64)Blackfoot imperatives lack person marking

a) *ooyí**t**!*
ooyi-**t**
eat.vai-**2S(IMP)**
"Eat!" (to a single person)

[33] Insert obligatory note about how the English subjunctive has nearly fallen out of usage, blah blah.

b) *ooyí**k**!*
ooyi-**k**
eat.vai-**2PL(IMP)**
"Eat!" (to several people)

(Frantz 1991:114)

Note again that the English data in (65) is parallel – imperative clauses in English lack morphological tense marking.

(65) English imperatives lack tense making

a) **Be** still!
b) ***Are** still!

Ritter & Wiltschko remark on the fact that in tensed languages, both imperative and subjunctive clauses have been analyzed as being "untensed" (cf. Giorgi & Pianesi 1997). As these are exactly the clause-types where Blackfoot lacks person prefixes, they thus analyze imperative and subjunctive clauses in Blackfoot as equivalently "unpersoned."

Ritter & Wiltschko also take movement to Comp as indicative of an Infl element – they note that I-C head movement is possible for English in question contexts.

(66)

a) $[_{CP}$ $[_{IP}$ Emma will have time to finish marking]]

b) $[_{CP}$ Will $[_{IP}$ Emma ~~will~~ have time to finish marking?]]'

They suggest that this is also the case for Blackfoot's person prefixes. They note that the person prefixes *nit-/kit-* is in complementary distribution with the epistemic modal *na-*, which Bliss & Ritter (2007) analyze as an instance of Comp. Under this assumption, the fact that *na-* and the person prefixes cannot co-occur, they argue, can be explained if the person-prefixes obligatorily raise to Comp. As a note, I offer an alternative account for the complementary distribution of *na-* and *nit/kit-* in chapter five. The alternative analysis, however, is not incompatible with the person-prefixes raising to Comp.

In summary, Ritter & Wiltschko (in prep.) show that there are several formal syntactic parallels between Person in Blackfoot and Tense in English. They therefore propose that Person in Blackfoot is the functional/syntactic equivalent of Tense in English. In the following subsection I present the formal implementation of their proposal.

2.2.2 Person Anchoring in Blackfoot

Recall that Ritter & Wiltschko (2005) analyze Tense as a temporal predicate of non-coincidence, which takes the Utterance Time (UttT), and the Event Time (EvT) is its temporal arguments. The function of Tense is to relate the Utterance to the Event, by temporally ordering the Utterance Time and Event Time. It thus asserts ***when*** the Event happens, relative to the Utterance. Formally, if Tense asserts that the UttT and EvT coincide, then the sentence is interpreted as present (-s). If Tense asserts that UttT and EvT do not coincide, then the sentence is interpreted as past (-ed).

(67)

a) Miwako bake-**s** (UttT and EvT [+coincide])
b) Miwako bak-**ed** (UttT and EvT [–coincide])

Ritter & Wiltschko (2005) suggest that Person (δ discourse) is likewise a predicate of non-coincidence. Where Tense takes the Utterance Time and Event Time as temporal arguments, Person takes the Utterance *Participants* and the Event *Participants* as arguments. Its function is thus to relate the Utterance to the Event, by either asserting that its two arguments coincide, or do not coincide. Person then asserts ***whom*** the Event involves, relative to the Utterance. Formally, if Person asserts that the Utterance Participants and the Event Participants coincide, then the sentence is marked with a person prefix nit/kit-, and the event being spoken about is interpreted as involving a speech-act participant (1st or 2nd person). If Person asserts that the Utterance Participants and the Event Participants do not coincide, then the sentence is marked with zero morpheme ∅-, and the event being spoken about is interpreted as not involving either of the speech-act participants (i.e., interpreted as involving a third person).

(68)

a) ***nit****-á-ihpiyi* (UttPart and EvPart [+coincide])

1-IMPF-dance.vai

'I am dancing'

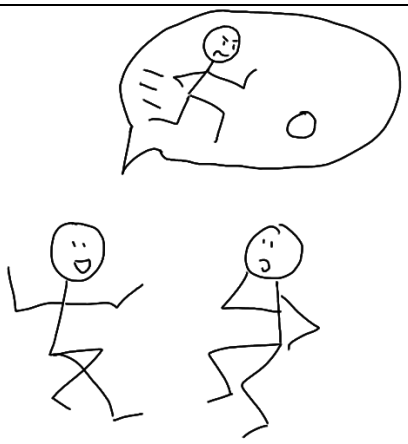
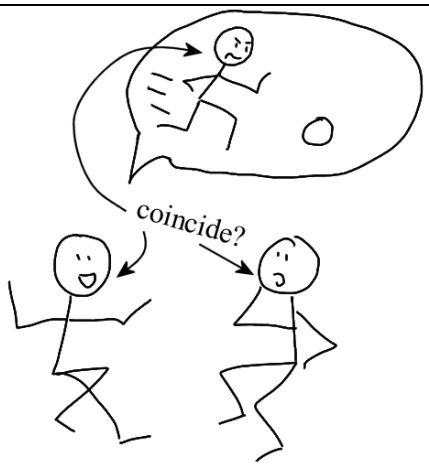
b) *Ø-á-ihpiyi* (UttPart and EvPart [–coincide])

3-IMPF-dance.vai

'He is dancing.'

This is represented below schematically in (69), and formally as in Ritter & Wiltschko (2005) in (70)[34]:

(69)

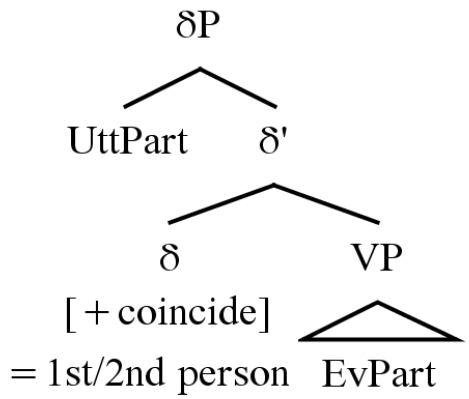
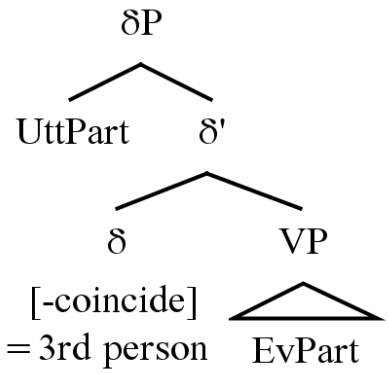
Event	Event-Anchoring via Person
	

[34] Note, however, that Person is necessarily more complex than Tense; while there is only one Utterance Time, there are two Utterance Participants – both speaker and addressee. Ritter & Wiltschko (2007) suggest, in the spirit of Larson (1988), and Speas & Tenny (2001), that the syntax of $Infl_{PERSON}$ may be ditransitive. Thus Person may be represented as ΔP, a ditransitive predicate of non-coincidence, with a functional "shell" δP, as per the structure represented below:

(5) [i_{δ}P SPEAKER $Infl_{\delta}$ [I_{Δ}P HEARER $Infl_{\Delta}$ [VP EVENT PARTICIPANTS]]]

Ritter & Wiltschko assume that anchoring proceeds "bottom-up" (cf. Enç 1987), and that due to economy considerations, any clause need only be anchored once, accounting for why events involving both the Speaker and Hearer are always anchored via the second person hearer *kit-*. For my purposes, I will abstract away from the ditransitive syntax of Person Infl.

(70)

a. nit-, kit-	b. ∅/ot-
	

2.3 Summary of Chapter Two

In this chapter I summarized Ritter & Wiltschko's (2004, 2005) arguments that Blackfoot lacks the syntactic node Tense, instead anchoring events to utterances via a syntactically parallel Person node. In the following chapter I propose that Ritter & Wiltschko's parametric anchoring options hold not only for the syntactic domain of Infl, but also for a lower syntactic domain – specifically the domain of vP and lower Aspect (also known as lexical, or situation Aspect).

Before continuing on, I will clarify some of my terminology choices. Ritter & Wiltschko suggest that Infl may be instantiated either by Tense, Location or Person, where Tense is anchoring via temporal means (the speech-time), Location anchoring via spatial means (the speech location), and Person anchoring via the speech-act participants. For my purposes, I assume that the relevant aspect of Person anchoring is the notion of *Participancy*, where at the IP-level, Person is a facet of Participancy in that Person indicates Speech-Act-Participancy, 1st person being identified with the speaker, 2nd person with the addressee, and 3rd person being identified as a non-speech-act-participant. Thus where Ritter & Wiltschko use δP (Discourse Phrase) to designate Infl substantiated via Person, for the most part I will use the term PersP (Person Phrase), and when abstracting away from the particular syntactic domain, I will use the term PartP (Participant Phrase) to indicate anchoring via means of participancy.

3.0 CHAPTER THREE: SUB-EVENT RELATIONS IN BLACKFOOT AND ENGLISH

In this chapter I expand Ritter & Wiltschko's proposal that English and Blackfoot differ according to the fact that

i) English anchors events to utterances via a *temporal* instantiation of the anchoring node Infl, i.e., TP,

ii) Blackfoot anchors events to utterances via a *personal* instantiation of the anchoring node Infl, i.e., $Pers_{on}P$, where Person indicates speech-act-participancy.

The main claim of this chapter is that Ritter & Wiltschko's proposal can also be extended to the "lexical" domain of event structure (cf. First Phase Syntax, Ramchand 2003; L-Syntax, Hale & Keyser 2002, Travis In Prep). Thus while Ritter & Wiltschko 2005 focus on looking at the event at an atomic level, in how the event as a whole relates to the utterance, or speech-event as a whole, I suggest that their proposed differences between English and Blackfoot also hold *within* the event. In sum, I propose that within the event,

i) sub-events in English are related via temporal notions like inner aspect/dynamicity, but that

ii) sub-events in Blackfoot are related via notions of participancy.

I then show that by adopting this proposal, several morphosyntactic properties of Blackfoot, such as the II/AI/TI/TA distinction, and the agentive subject-restriction, can be derived as parallel to more familiar English phenomena, as opposed to being stipulated as idiosyncratic properties of Blackfoot grammar. First, however, I present my motivation for extending Ritter & Wiltschko's proposal to the event-domain.

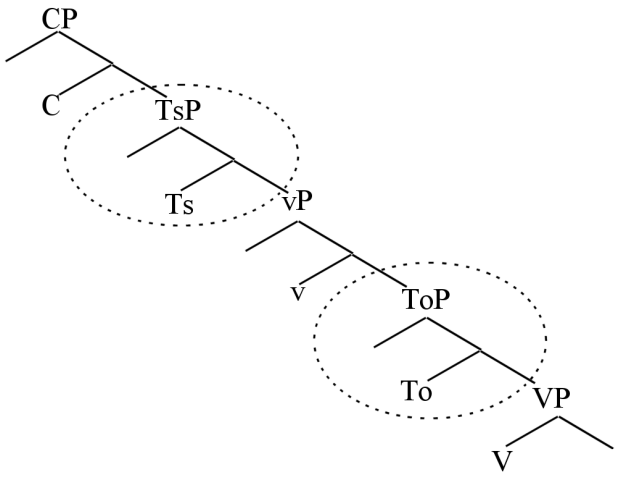
3.1 Introduction - Theoretical Motivation

Case as Uninterpretable Tense on D (Pesetsky & Torrego 2001, 2002)

Recall that the lack of nominative case, and Case-driven movement, is presented in Ritter & Wiltschko 2004 as evidence that Blackfoot lacks the syntactic node Tense. Pesetsky & Torrego 2001 formally link structural case to Tense, arguing that nominative case is actually an instance of an uninterpretable Tense feature on D. Under Pesetsky & Torrego 2001, then, nominals that are realized with nominative case have an uninterpretable Tense feature that needs to be checked against an interpretable T feature on Tense. Because Tense has uninterpretable ϕ-features (realized as agreement), and D has interpretable ϕ-features, T and D can therefore enter into an symmetrical Agree relation. Following these assumption, then, if Blackfoot lacks a syntactic node Tense with interpretable T features, the lack of a case-checking system is unsurprising.

Note though, that while the above proposals can explain the lack of structural *nominative* case in Blackfoot, they cannot account for the lack of structural *accusative* case. Pesetsky & Torrego 2002 extends the proposal, however, such that accusative case is also an instance of an uninterpretable Tense feature on D. Pesetsky & Torrego acknowledge that this uTense feature cannot be checked by an interpretable tense feature on what is traditionally known as TP, however. They therefore suggest that there are two instances of TP in English; a high T_sP, which is identified as the traditional TP, and a lower T_oP, which they identify as analogous to Travis' (1991, In Prep) Aspect Phrase. While T_s is located between CP and vP, T_o is located between vP and VP:

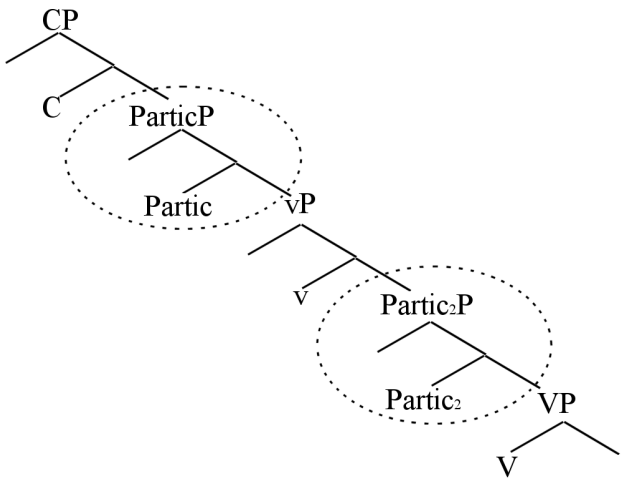
(3.2



Pesetsky & Torrego 2002 suggest that the function of T_o is to relate sub-event times – i.e., it participates in determining the morphosyntactic properties of Event Structure. Taking this proposal,

and Ritter & Wiltschko 2005 into account, I propose that Blackfoot has a lower Participant Phrase, in place of this lower Tense Phrase:

(71)



Thus just as Ritter & Wiltschko suggest that IP is the universal anchoring node, whose function is to relate/anchor events to utterances, I suggest that there is a universal AspP, whose function is to relate sub-events. Just as the content of Infl can vary parametrically, according to whether events are related to utterances via temporal notions, locative notions, or participancy notions (schematized in (72)), I suggest that the content of AspP can vary parametrically according to whether sub-events are related via temporal notions, locative notions, or notions of participancy (this is schematized in (73))

(72) Parametric choice of Anchoring Nodes: English, Halkomelem and Blackfoot[35]

Clausal Anchoring node IP:

a. Temporal (T_sP) → English

b. Locative (Loc_sP) → Halkomelem

c. Participancy ($Part_sP$) → Blackfoot

[35] A question for further research is whether or not languages must align their settings for Infl the same way they align their settings for Asp. Duk-Ho An suggests that cases of split ergativity could result from non-aligning parameter settings with respect to Infl and Asp.

(73) Parametric choice of Sub-event Relation Nodes: English, Halkomelem and Blackfoot

Clausal Sub-event Relation node AspP:

a. Temporal (T_oP) → English

b. Locative (Loc_oP) → Halkomelem[36]?

c. Participancy ($Part_oP$) → Blackfoot

Now, if Blackfoot lacks a locus for a lower interpretable T feature, the lack of structural accusative case in Blackfoot is expected[37]. The lack of case-driven subject-to-object raising (see chapter 2, footnote 11), is likewise expected. Now, in entertaining the above proposal – that Blackfoot's structural equivalent of T_oP encodes notions of participancy as opposed to temporal notions – the following questions can be asked:

i) If the person prefixes are instantiations of Blackfoot's higher Participant Phrase, are there morphemes in Blackfoot that instantiate the proposed lower Participant Phrase?

ii) Are there morphological/syntactic/semantic consequences for the proposal –i.e., is there evidence that where English has a lower Tense Phrase, Blackfoot has a lower Participant Phrase?

I suggest that Blackfoot's direct/inverse morphemes are instantiations of the lower Participant Phrase. Note that these, like the person-prefixes that Ritter & Wiltschko propose to be instances of the higher Participant Phrase, encode distinctions of person:

[36] I focus here on Blackfoot and English, and leave the issue of whether Halkomelem, or other languages, relate sub-events via locations for further research.

[37] Duk-Ho An brings up a valid point regarding whether or not this is actually expected, as there are no provisions in place to prevent Infl as LocP, or Infl as PartP from having interpretable features that might check corresponding uninterpretable features on nominals. Regarding Blackfoot and PartP, I can suggest two possible responses to this. First, I assume that Infl as PartP indeed has interpretable person features just as Infl as TP has interpretable tense features; I assume a possible difference is that while tense features are *uninterpretable* on English nominals (i.e., it is not possible to mark an English nominal as being specified as [± past]), thus requiring a Case feature-checking system, person features on Blackfoot nominals are interpretable (i.e., it is possible to mark a Blackfoot nominal as being specified as [± SpeechActParticipant]), thus *not* requiring a feature-checking system. The second option is that Blackfoot does have a feature-checking system, however that the different properties of Blackfoot Infl as PartP results in this checking system looking significantly different than what we are used to from temporally-driven systems. See Bliss 2005, for relevant discussion.

(74) Blackfoot's Direct/Inverse morphemes show person distinctions

Agent → Patient↓	**1**	**2**	**3 (prox)**	**3' (obv)**
1		*-oki*	*-ok*	*-ok*
2	*-o*		*-ok*	*-ok*
3 (prox)	*-a*	*-a*		*-ok*
3' (obv)	*-a*	*-a*	*-yii*	
0 (inan)	*-hp ~ -'p*	*-hp ~ -'p*	*-m*	*-m*
	agent [+SAP]		agent [-SAP]	

(75) Direct/Inverse morphemes, collapsed according to whether the agent is [± SAP]

Actor/Participant1 → Participant2 ↓	**[+SAP]**	**[-SAP]**
1	*-oki*	*-ok*
2	*-o*	*-ok*
3	*-a*	*-ok*
3'	*-a*	*-yii*
0	*-hp, -'p*	*-m*

In the following section I look for further evidence that these morphemes play the role of $Part_o$ in Blackfoot, paralleling their function to Pesetsky & Torrego's proposed role for T_o in English. In particular I look at the syntax of the lower part of clause-structure - what is variously termed as event structure syntax, first-phase syntax (Ramchand 2003), or l-syntax (Hale & Keyser 2002, Travis In Prep). I compare and contrast how English and Blackfoot behave in this domain, and argue that the parallels and differences can be explained via a parameter that encodes whether sub-events in the respective languages are related via temporal notions, or participancy notions[38].

3.2 Parallels between English T_o and Blackfoot $Part_2$

3.2.1 First Attempt: Parallels between English T_o and Blackfoot $Part_2$

Pesetsky & Torrego 2002 hypothesize that the semantic function of T_oP is to temporally relate the vP sub-event to the VP sub-event (Pesetsky & Torrego 2002:12). They equate the vP sub-event with the predicate that denotes a process (which introduces the agent argument), and the VP sub-event

[38] Ritter & Rosen have a paper on "Event Structure in Blackfoot," however at the time of writing, I do not have access to it, and cannot gauge how far my approach deviates from theirs, or indeed, if the approach taken here is even compatible with the approach taken there.

with the predicate denoting the completion of the process (this sub-event introduces the an additional argument, which for now I've labeled 'patient'.) This is represented in table (76):

(76)

Category	**Sub-Event encoded:**	**Argument introduced**
vP	predicate denoting a ***process***	agent
VP	predicate denoting ***completion of the process***	patient

What T_o encodes, then, is the relation between the ***process*** associated with the vP sub-event and the ***completion*** associated with the VP sub-event – i.e., it encodes semantic properties like telicity[39], dynamicity[40] or boundedness. While the use of terminology and definitions for the semantic notions just mentioned are both numerous and contentious in the literature, they all fall under the rubric of what is (also variously) termed in the literature as lexical aspect (cf. Rothstein 2004) , inner aspect (cf. Travis 1992), or situation aspect (cf. Smith 1997). Note that by exhausting the parametric possibilities encoded in the second column of the table above – i.e., whether or not vP encodes a process, and whether VP encodes an endpoint, one can derive Vendler's four lexical aspectual classes[41]:

(77) T_0 (Asp) encodes Relationship between vP and VP

4 kinds of verbs	**process (associated with vP)**	**endpoint (associated with VP)**
states	-	-
activities	+	-
accomplishments	+	+
achievements	-	+

[39] I assume a predicate is "telic" if the event denoted by the predicate shows a homomorphism, with respect to the "part-of" relation, to its "theme." For clarity, the following definition is taken from Dowty 1991, p. 567: "If x is a part of y, then if a telic predicate maps y (as Theme) onto event *e*, it must map x onto an event e', which is part of e."

[40] Dynamicity is defined as "a movement from beginning to end" (Verkuyl 2001:369)

[41] See Travis (In prep) for a similar derivation of Vendler's aspectual classes via the properties encoded by the event-internal functional phrases. Verkuyl (1993) first argued that Vendler's verb classes were decomposable according to the parameters [± bounded] and [± continuous]. See also Carlson (1981), Moens (1987), Hoeksema (1983) and Mourelatos (1978) for different characterizations of the features that derive the four aspectual classes.

(78) Examples of Vendler's four verb classes in English

State:	*know*, *love*, *possess*
Activity:	*run, eat, swim,*
Accomplishment:	*run a mile, eat a sandwich, draw a circle*
Achievement:	*recognize, reach, win*

The linguistic reality of Vendler's aspectual classes is observable in the fact that the different verb classes have different distributional patterns with respect to certain constructions. For example, while activities and accomplishments are felicitous with progressive morphology, statives and achievements cannot are not:

(79) Activities and Accomplishments are felicitous with progressive morphology

	Activities	*Accomplishments*
a.	I **am** runn**ing**.	b. I **am** runn**ing** a mile.
c.	I **am** swimm**ing**.	d. I **am** eat**ing** a sandwich.

(80) Statives and Achievements[42] don't appear with progressive morphology

Statives

a.	**#** I **am** know**ing** the answer.	a'.	I know the answer.
b.	**#** I **am** lov**ing** my bicycle.	b'.	I love my bicycle.

Achievements

c.	**#** I **am** recogniz**ing** his face.	c'.	I recognize his face.

Another test used to determine the aspectual class of a predicate is whether or not the predicate is felicitous with "for-" or "in-" adverbials. Thus while activities are felicitous with "for-" adverbials, and

[42] Note that when you say "I am winning the race", you're not actually saying that the "winning" is instantaneous, as with "I am reaching the top," the "reaching" is not instantaneous. When using these forms, the events are purportedly being reanalyzed as accomplishments – i.e. as having a process sub-event, and the progressive targets the process.

infelicitous with "in-" adverbials; accomplishments pattern in the opposite way, being felicitous with "in-" adverbials but infelicitous with "for-" adverbials:

(81)

Activities

a. I ran **for three hours**. a'. #I ran **in three hours.**

b. I swam **for three hours**. b'. #I swam **in three hours.**

Accomplishments

c. #I ran a mile **for three hours.** c'. I ran a mile **in three hours.**

d. #I ate a sandwich **for three hours**. d'. I ate a sandwich **in three hours.**

Turning now to Blackfoot, if $Part_oP$ universally relates sub-events to each other via participants, one would expect $Part_oP$ to encode a relation between the participants associated with each sub-event – i.e. to relate the ***agent*** to the ***patient***. This is represented in table (82).

(82)

Category	**Sub-Event encoded:**	**Argument introduced**
vP	predicate denoting a process	***agent***
VP	predicate denoting completion of the process	***patient***

I have suggested that Blackfoot's direct/inverse morphemes are instantiations of the $Part_o$ head, and indeed, recall from chapter 1 that the direct/inverse morphemes act together with the person prefixes in order to indicate who is acting on who – i.e., the relationship between the participants:

(83)

a.	***nit****sinow****a***	*oma*	*ninaa*[43]
	nit-ino-**a**	om-wa	ninaa
	1-see.vta-**DIR**	DEM-3	man
	"I saw the man"		

[43] A question raised by Duk-Ho An is where elements such as *oma nínaa* 'that man' fit into the syntactic clause structure. I assume, following Glougie 2000, that overt DPs like 'that man' *oma ninaa,* being optional, are adjuncts that are introduced high in the clause structure. Thus I assume something along the lines of Jelinek 1984's Pronominal Argument Hypothesis, such that argument positions are satisfied not by overt DPs, but via obligatory pronominal agreement/clitics.

b. ***nit****sin****ok*** *oma ninaa*

nit-ino-**ok** om-wa ninaa

1-see.vta-**inv** DEM-3 man

"The man saw me"

Thus while the first-person prefix *nit-* in both a) and b) indicates that a first person is involved in the relevant event, it does not indicate whether the first person is the one acting, or the one being acted upon. It is only in combination with the direct/inverse morphemes *–a* and *–ok* in a) and b) respectively that the first-person prefix can be interpreted as the see-*er* in a) and the see-*ee* in b).

Note also that if you exhaust the parametric possibilities, according to the information provided in column three of the above table in (82) – i.e., whether or not vP introduces an animate argument, and whether or not VP introduces an animate argument, Bloomfield's (1946) well-known four-way morphological distinction for Algonquian verb stems can be derived:

(84) Part2 encodes Relationship between vP and VP[44]

4 kinds of verbs	external (animate) argument (associated with vP)	Single (animate) argument (associated with VP)
II	-	-
AI	-	+
TI	+	-
TA	+	+

(85) Examples of the four verb classes in Blackfoot

II (Inanimate Intransitive): *iiyiko* 'be difficult'

AI (Animate Intransitive): *iiyikoosi* 'be difficult'

TI (Transitive Inanimate): *iiyiki'tsi* 'find (it, inanimate) difficult'

TA (Transitive Animate): *iiyikimm* 'find (it, an., him/her/you/me) difficult'

[44] Note that this table indicates that only animate nouns can appear as the external arguments in transitive verbs. This is in fact the case, as mentioned later in section 3.2.2.1. Only grammatically animate nouns (in fact, a subset of animate nouns – sentient (real-world animate) nouns) can be the external arguments of transitive verbs in Blackfoot.

Like the English aspectual classes, proof that this four-way classification is a linguistic reality can be seen in how the different verb classes interact with certain morphosyntactic constructions. For instance, in Blackfoot, only predicates that are morphologically AI and II (intransitive) can take part in the causative and accompaniment constructions (Frantz 1991:102, 106). Thus where the English aspectual classes are sensitive to *temporal* elements, such as progressive morphology, and "for Xtime"/"in X-time" adverbials, the II/AI/TI/TA verb classes in Blackfoot are sensitive to elements that introduce *participants* (both the causative and accompaniment morpheme introduce an extra argument, or extra participant in the relevant predicate).

The skeptical reader might question the above parallel, and be suspicious of why I need to invoke the animacy of arguments being introduced in order to get the correct verb classifications. I agree that the parallel is weakened in this way – however I suggest that this animacy parameter is actually parallel to the English paradigm, if the English paradigm is slightly reformulated. In the next section, I revise the formalization of the parallel paradigms between English and Blackfoot. While I still argue that sub-events are related *temporally* in English, I suggest that this is done via the *temporal/aspectual* arguments introduced – i.e, whether an INITIATOR argument is introduced by vP, and/or whether a MEASURE argument (cf. incremental theme, Dowty 1991, Tenny 1994) is introduced by VP. This modification is represented in table (86):

(86) English Verb Classes – Modified for Aspectual arguments

4 kinds of verbs	INITIATOR, introduced (associated with vP)	MEASURE –count, introduced (associated with VP)
states	-	-
activities	+	-
accomplishments	+	+
achievements	-	+

With this reformulation, the English paradigm requires a similar appeal to the morphosyntactic properties of the arguments introduced – in particular, whether the argument introduced is mass/count and singular/plural. Recall from above that an activity that takes a direct object becomes an

accomplishment: where *eat* is an activity, *eat a sandwich* is an accomplishment. However, this only holds true if the direct object is a count noun– if the direct object is a mass noun, or a bare plural, as in *eat ice-cream,* or *eat chickens*, the predicate is still interpreted as an activity (Kearns 2000:220-221).

(87)

Activity

a. I ate **for three hours**. a'. #I ate **in three hours.**

Accomplishment

b. #I ate a sandwich **for three hours.** b'. I ate a sandwich **in three hours.**

Activity

c. I ate ice-cream **for three hours**. c'. #I ate ice-cream **in three hours.**

d. I ate chickens **for three hours.** d'. #I ate chickens **in three hours**.

In this way then, a parameter based on the animacy of the arguments being introduced in Blackfoot is parallel to a parameter based on the mass/count property of the arguments being introduced in English. In the next section I elaborate further on these aspectual roles of INITIATOR and MEASURE, and continue the comparison/contrast between Blackfoot and English sub-event relations.

3.2.2 Second Pass: Event Structure in English and Blackfoot

Even with the proliferation of functional projections within the past 30 years, a standard assumption in current theory is that clausal structure can be roughly broken down into three domains (cf. Grohmann 2000's "prolific domains," Elouazizi & Wiltschko 2006.) These three domains correspond to the original clause structure proposed by Chomsky 1986: VP-IP-CP. Each domain is associated with a different level of representation; the VP-domain, or thematic-domain, encodes thematic roles; the IP-domain, or grammatical/agreement-domain, encodes grammatical properties like Case and agreement; and the CP-domain, or discourse-domain, encodes discourse roles like topic and focus.

This is schematized below in (88):

(88)

VP	IP (AgrS, AgrO)	CP
Thematic Roles →	*Grammatical Roles* →	*Discourse Roles*
(agent, patient)	(subject, object)	(topic, focus)

Event Structure

The domain of interest for this section is the fine structure of the VP – variously known in different works as "event structure," "first-phase-syntax" (Ramchand 2003), or "l-syntax" (cf. Hale & Keyser 2002, Travis In Prep). This is the level of representation that in the GB framework encoded lexical semantic roles like agent, theme, goal, etc., and was subject to constraints and linking criteria such as the Theta-Criterion (cf. Chomsky 1981) and the Uniform Theta-Assignment Hypothesis (UTAH, Baker 1988). What is relevant for the following discussion is UTAH, which is defined below in (89):

(89) Uniform Theta-Assignment Hypothesis

> Identical thematic relationships between predicates and their arguments are represented by identical structural relationships when items are Merged.

(Baker 1988, definition taken from Adger 2003:138)

The idea that specific thematic roles are associated with specific syntactic configurations while theoretically elegant, is problematic empirically. Dative alternation verbs, psych predicates[45], and spray-load alternations all appear to be exceptions to the rule:

(90)

a. **Horror movies** frighten Mélissa.
b. Miwako fears **horror-movies.**

c. Ewan kicked the volleyball **to Michelle**
d. Ewan kicked **Michelle** the volleyball

[45] I do not address psych predicates in this work.

e. Ailis stuffed **the pillow** with the feathers (in two hours)
f. Ailis stuffed **the feathers** into the pillow (in two hours)
g. Mark loaded **the wagon** with the hay (in two hours)
h. Mark loaded **the hay** on the wagon (in two hours)

The examples above are problematic for UTAH in that it appears that elements with the same thematic properties not always generated in the same syntactic positions. Thus where *the pillow* (90)e) is the direct object, *the pillow* is introduced in a prepositional phrase in (90)f), despite the fact that they play the same thematic role.

Several researchers thus set about to reformulate the relevant semantic properties encoded in deep/event structure, in order to account for the problematic phenomena. Among others, Tenny 1994 suggests that while thematic roles are encoded semantically in the lexicon, they do not play a role with respect to linking to syntactic arguments. Her proposal, the Aspectual-Interface Hypothesis, is predicated on the concept that while semantic roles are mapped onto syntactic arguments, the relevant semantic properties are *aspectual*, not thematic, properties. She thus defines aspectual roles like "measure" and "terminus" which roughly correspond to the former thematic roles "theme" and "goal." Further work on event structure has resulted in slightly different variations of terminology and frameworks (cf. Borer 2005's "originator" and "subject-of-quantity.") For my purposes, I loosely adopt the framework of Ramchand 2003. Hence, I assume that there are three aspectual roles, corresponding roughly to the former thematic roles of "AGENT," "THEME" and "GOAL" – these aspectual roles are that of an "INITIATOR," "MEASURE" and "RESULTEE." In the next few subsections I briefly demonstrate some of the reasons for adopting an aspectual approach, as opposed to a thematic approach, with respect to argument-linking in the VP-domain of English. I begin first with the benefits of assuming that the semantic role associated with an external argument is better formalized as an aspectual INITIATOR as opposed to a thematic AGENT.

3.2.2.1 External Arguments: Agents or Initiators?

In English, an external arguments associated with vP can be a volitional agent(91)a, b), an instrument (91)c, d) as well as an abstract cause or source (91)e, f):

(91)

a) John broke the window
b) John built that house.
c) That hammer broke the window.
d) The videotape from the secret camera demonstrated the truth of the matter.
e) The storm broke the window.
f) John's money built that house. (Ramchand 2003:6)

Whether these should all be unified under the rubric of the thematic role "AGENT" is questionable – after all, hammers, videotapes, storms and money do not seem particularly agentive. The question, then, is whether there is a common semantic property associated with the external argument. Ramchand 2003, among others, argues that what all of these external arguments share is that they are "INITIATORS," (cf. Borer's "originator)– i.e., it is a temporal/aspectual property – the temporal property of having begun or initiated the event - which is important for syntactic linking purposes. An important thing to keep in mind is that INITIATOR in this context refers to a purely temporal role – thus any agentive meaning colloquially associated with the word *initiator* must be detached from the theoretical term. Thus a videotape, while perhaps not being colloquially thought of as an initiator, can nonetheless be an INITIATOR in that it (or its contents) can be attributed with defining the point in time at which an event was put into motion.

Note, however, that in Blackfoot, external arguments can only be volitional agents (Frantz 1991:45).

(92) *ikahksínimayi*
ikahsini-**m**-wa-ayi
cut.vti-**3>0-**3-DTP
"He cut it off"

(Frantz & Russell 1989:34)

(93)

a) **oma* *isttoána* *ikaksíni**m**a* *annistsi* *ikkstsíksiistsi*
om-wa isstoán-wa ikaksini-**m**-wa ann-istsi ikkstsíksi-istsi
dem-3 knife-3 cut.vti-**3>0**-3 DEM-0PL branch-0PL
Target: "That knife cut off those branches"

b) *oma* *isttoána* ***iiht**síkahksinii**'p**i* *annistsi* *ikkstsíksiistsi*
om-wa isttoán-wa **iiht**-ikahksini-**'p**-yi ann-istsi ikkstsíksii-istsi
DEM-3 knife-3 **means**-cut.vti-**21**-3' DEM-0PL branch-0PL
"That knife cut off those branches"
(lit. By means of the knife, the branches were cut off"

(Frantz 1991:45)

(92) shows how the verb *ikahksini* 'cut (TI) normally inflects for a third-person agentive subject acting on an inanimate object – it takes the direct/inverse suffix *–m*[46]. Note now that a corresponding sentence which takes the animate-gender, but non-agentive nominal *oma isttoána* "(demonstrative) knife" as its logical subject instead cannot inflect in the same manner (93). In order to convey the meaning of "The knife cut off those branches" in Blackfoot, one must use the unspecified construction, as indicated by the direct/inverse suffix *–'p*[47] and indicate the knife's role via a means/instrument-linking prefix *iiht* (Frantz 1991:44).

[46] The morpheme glossed as DTP refers a "distinct third person" pronoun. Frantz states that it is used "only when there is another third person in the immediate context, though not necessarily in the same sentence." (Frantz 1991:48). I have found this element to be difficult to elicit in elicitation-contexts; it seems quite discourse-sensitive.
[47] This morpheme *–'p* shows syncretism between indicating first-person plural inclusive, and an unspecified subject:

(i) *ikóónii**'p**i* *ómistsi* *ksíkkokóówaistsi*
ikóónii-**'p**-yi om-istsi ksikk-okoowa-istsi
take.down.vti-**21**-3' DEM-0PL white-house-0PL
"Those tents were taken down (lit. Unspecified took those tents down)" (Frantz 1991:44)

(ii) *áaksikonii**'p**a* *oyísi*
aak-ikoonii-**'p**-wa o-yisi
FUT-take.down.vti-**21**-3 3-lodge
"We$_{21}$ will take down his lodge" (Frantz 1991:44)

This shows that while it can be argued that is the *temporal* properties of the external argument that are important for English argument linking, in Blackfoot it appears that a property of *agency*, or *participancy,* is more important.

3.2.2.2 Internal Arguments: Themes or Event-Measures?

In this section I go over the benefits for assuming that the semantic properties of internal arguments in English are better accounted for with an aspectual, as opposed to thematic, analysis. In particular, I go over the reasons for formalizing the semantic properties of the internal argument as an event MEASURE, as opposed to a "THEME."

Recall the problem associated with spray/load alternations:

(94)

a) Ailis stuffed **the pillow** with the feathers (in two hours)
b) Ailis stuffed **the feathers** into the pillow (in two hours)

Spray/load alternations are problematic for UTAH in that it appears that elements with the same thematic properties are not always generated in the same syntactic positions - where *the pillow* (94)a)) is the direct object, *the pillow* is introduced in a prepositional phrase in (94)b)), despite the fact that they play the same thematic role. Tenny (1987) argues that the difference between (94)a)) and (94)b)) lies in their aspectual delimitedness - more specifically, in which NP "measures out the event" (see also Dowty 1991, which builds on Krifka 1989 – Tenny's notion of a "MEASURE" is comparable to his notion of an "incremental theme") Thus while *the pillow* acts to measure out the event in (94)a)), *the feathers* acts to measure out the event in (94)b)). This notion of "measuring out an event" can be illustrated as follows. First, assume that events/predicates can be broken down into parts – i.e., events/predicates have temporal sub-structure. The idea behind an event-measure is that the sub-structure of the event/predicate is structurally parallel to the sub-structure of the entity acting as the event-measure. Take (94)b)) as our example. Before the event denoted by the predicate begins, you have a full supply of feathers, and an entire event to complete:

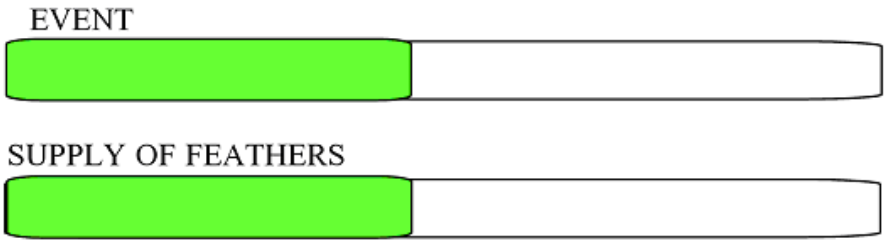
(95) Stage 1: Full "Event gauge" and "Feather gauge"

As the event progresses, feathers get stuffed into the pillow, and the supply of feathers decreases.

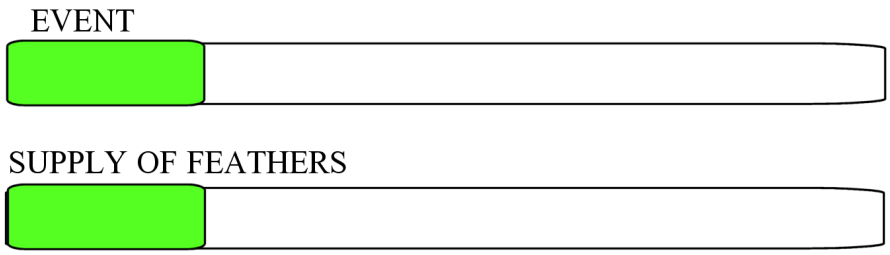
(96) Arbitrary Stage 2: "Event gauge" and "Feather gauge" are ¾ full

This continues on; the amount of feathers left over decreases in tandem with the amount of event left over to complete, and only when the supply of feathers is half-used can I say that I am half-done "stuffing the feathers into the pillow."

(97) Arbitrary Stage 3: "Event gauge" and "Feather gauge" are ½ full



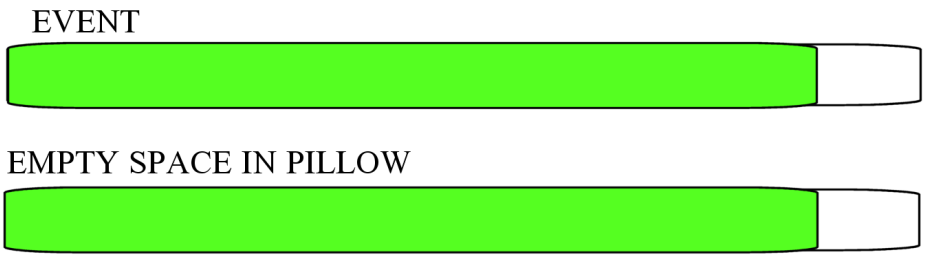
(98) Arbitrary Stage 4: ""Event gauge" and "Feather gauge" are ¼ full



This continues until the supply of feathers has run out, at which point the event is considered complete, or finished. In this way, "the feathers" can be seen as "measuring out" the event.

(94)a)), on the other hand, measures out the event with "the pillow." In this case, before the event begins, you have a completely empty pillow and an entire event to complete.

(99) "Event Gauge" and "Pillow Gauge"



As the pillow-stuffing ensues, the amount of empty space in the pillow decreases, in tandem with the amount of event left over to complete. Only when the pillow is half-ful (and half-empty) can I say that I am half-done “stuffing the pillow with feathers.” This continues until the amount of empty space in the pillow has dwindled to nothing – i.e., the pillow is full, at which point the event is considered complete, or finished.

By distinguishing (94)a)) and (94)b)) (repeated as (100)a)) and (100)b)) according to which NP acts as the "MEASURE," you predict different entailments. If "the pillow" acts as the "MEASURE" in 94)a)) it entails that the pillow be completely filled by the end of the two hours (however you can have leftover feathers). If "the feathers" acts as the "MEASURE" in (100)b)), you entail that the supply of feathers has completely run out by the end of the two hours (but you can still have empty space in the pillow). The following data suggests that this is the case – 94)a)) and (100)b)) have different entailments with respect to whether or not the pillow is full, and whether or not the supply of feathers is gone:

(100)

a) Ailis stuffed **the pillow** with the feathers in two hours
(**#but the pillow wasn't full**)

b) Ailis stuffed **the feathers** into the pillow in two hours
(but the pillow wasn't full)

c) Ailis stuffed **the pillow** with the feathers in two hours
(but there were still feathers left over)

d) Ailis stuffed **the feathers** into the pillow in two hours
(#but there were still feathers left over)

Thus the incompatibility of the spray/load alternations with UTAH can be dealt with if the internal argument (that is not introduced by a preposition) is characterized according to its temporal, aspectual properties – i.e. as an event "MEASURE."

Note, however, that in Blackfoot, these types of verbs don't alternate – the direct/inverse marker always indicates the same argument.

(101) *Context: My sister has her head stuck in between the banister railings.*

a) *nitoohtohpúún**a*** *aná niisis iihtaisstsikahkimo'pi*
nit-ooht-ohpoon-**a** an-wa n-iisis iiht-á-isstsikahkimo-'p-yi
1-means-grease.**vta**-**DIR(1/2>3)** DEM-3 1-sister means-IMPF-spread.vti-21-0
"I rubbed my sister with butter."

b) *nitoóhtohpúún**a*** *iihtaisstsikahkimo'pi aná niisis*
nit-ooht-ohpoon-**a** iiht-á-isstsikahkimo-'p-yi an-wa n-iisis 1-means-grease.**vta**- **DIR(loc>3)** means-IMPF-spread.vti-21-0 DEM-3 1-sister "I used butter to rub my sister with"
Target: I rubbed butter on my sister

(Elicited 2007-12-18)

In both (101)a)) and (101)b)), the direct/inverse marker on the verb indicates the animate third-person "sister" as opposed to the inanimate "butter." If the verb agreed with the inanimate argument, we would expect the verb would take the TI form *ohpooni* as opposed to the TA *ohpoona,* and the direct/inverse marker would take the form *–hp ~ –'p* . Note that even when the TI form of the verb is used, the relevant inanimate argument still appears to be the thing that is greased, not what is being used as grease:

(102) iihpóónima matsikíístsi
ii-ohpooni-m-wa matsiki-istsi
?-grease.vti-3>0-3 shoe-0PL
"He oiled his shoes" (Frantz & Russell 1998:148)

This shows that unlike English, the argument indicated by the direct/inverse marker does not appear to co-vary according to aspectual/temporal properties.

The question that then arises is: what semantic properties is argument-linking in Blackfoot is sensitive to? If, as I have argued, event roles in Blackfoot encode a notion of participancy, we expect that argument linking in Blackfoot would be sensitive to notions of participancy. We saw above that the introduction of the external argument in Blackfoot appears restricted to encoding agency/volition – the external argument in Blackfoot, unlike English, can be uncontroversially characterized as an AGENT, a willing, volitional participant. The remaining question is what semantic properties the internal argument is associated with. A first guess might be to follow a system of thematic roles and term the internal argument as a PATIENT. However, this characterization is problematic – the second argument indicated on a Blackfoot transitive verbal complex, while sometimes indicating a "patient"-like argument, shows a discernible preference for indicating a volitional sentient participant. For example, in verbs of transfer, the verb always indicates the recipient, not the item of transfer. Consider the following dictionary entry for *give*:

(103)

> ***ohkot vta***; give (something) to; kotsísa! give (it) to him!; áákohkotsiiwa she will give it to him; iihkotsííwa he gave it to her; nítohkokka she gave to me; notohkotawa I gave to her; iihkotááwa he was given (s.t.).
>
> (Frantz & Russell 1989:142)

(104)

a. ***nít****ohk****okk****a***
nit-ohkot-**ok**-wa
1-give.vta-**3>1/2**-3
"She gave (something) to me[48]"

b. *áákohkots****ii****wa*
aak-ohkot-**yii**-wa
FUT-give.vta-**3>3'-**3
"She will give it to him."

(Frantz & Russell 1989:142)

The inflectional pattern of the verb can be seen in (104)a) – note that if (34)b) was indicating the object of transfer as opposed to the recipient, we would expect a TI form (which is unattested in the dictionary), and the *–m* direct/inverse marker which indicates an inanimate argument with a third person actor. Instead, however, we get the TA form as given, and the *–yii* direct/inverse marker, which indicates the sentient recipient.

Likewise, in benefactive constructions, the benefactive is always the one indicated on the verb. Below, the verb inflects for the first-person benefactive, as opposed to the third-person baby that is the logical object of the verb SUCKLE/NURSE.

(105)

nit*sstááhkahtom****ok****a*	*nítsssitsimaani*
nit-sstaahkaht-omo-**o:k**-wa	nit-ssitsimaan-yi
1-suckle.vrt-ben.vta-**INV**-3	1-baby-3'
"**She** nursed my baby for **me**."	(Frantz 1991:105)

[48] This example shows a regular phonological process with respect to the inverse marker: t + ok → okk (Frantz 1991:

The accompaniment construction is another instance where the second argument indicated by the verbal morphology does not indicate a particularly "patientive" argument. When the accompaniment morpheme attaches to an intransitive verb[49], another argument is introduced, where this newly introduced argument is understood as performing the action denoted by the predicate along with the original argument. When this morpheme attaches, the verb morphologically inflects as if transitive, and it is the accompanier who is indicated as the second argument by the verbal morphology.

(106)

a)	*nitána*	*iihpoká'po'takiim**ii**wa*	*nohkóyi*
	n-itán-wa	iihpok-a'potaki-:m-**yii**-wa	n-ohko-yi
	1-daughter-3	with-work.vai-acc.vta-**DIR(3>3')**-3	1-son-3'

"My daughter worked with **my son**"

b) ***nít**ohpokohto'toom**a**w*

nit-ohpok-oht-o'too-:m-**a:-**wa

1-w/-source-arrive.vai-acc.vta-**DIR(1>3)**-3

amá	*nitohkíímaana*	*omahkoyisi*
am-wa	nit-ohkiimaan-wa	omahk-oyiS-yi
DEM-3s	1-wife-3	big-lodge-0

"I arrived from Edmonton with **my wife**"

(Frantz 1991:106)

While I do not claim to have clearly characterized the semantic properties associated with Blackfoot's internal argument, as there is still much work to be done, I believe that the facts above hint towards an analysis where the relevant semantic property associated with the internal argument is *also* one of participancy, where indicating the more active of a participant is preferred by the grammar.

Note that if it is the case that Blackfoot's VP-domain encodes participant roles as opposed to aspectual roles, you predict a difference between the languages with respect to reflexive constructions.

[49] Recall, in fact, that the accompaniment morpheme can only attach to morphologically intransitive verbs.

Whereas in English a reflexive construction would be expected to encode two arguments – both an INITIATOR, and a MEASURE, as the event denoted has both a beginning point (and thus has an INITIATOR), and can be measured out (and thus can have a MEASURE), in Blackfoot, reflexive constructions should only encode one argument, as there is really only one participant involved in a reflexive construction. This is in fact the case – in Blackfoot, reflexive constructions inflect as if they are intransitive, indicating only one argument:

(107)

*isskonákat**ohsi**wa*
i-sskonákat-**o:hsi**-wa
?-shoot.vta-**refl.vai**-3
"He shot himself" (Frantz 1991:107)

Note the difference with respect to the English translation in (107), where both *he* and *himself* indicate arguments – *he* indicating the INITIATOR role and *himself* playing the role of the event MEASURE[50,51].

3.2.2.3 Interim Summary

To summarize to this point, in this section I have suggested that Ritter & Wiltschko (2005)'s proposal can be extended from the IP domain to the VP domain. This means that where Ritter & Wiltschko propose that English and Blackfoot differ according to the manner in which events are related to utterances – via temporal notions in English and via notions of person/participancy in Blackfoot, I propose that English and Blackfoot also differ in the manner in which sub-events are related to each other. Specifically, I suggest that where English relates the VP and vP sub-events to

[50] Viewing *himself* as an event measure is not as straightforward as the former examples with pillows and feathers, however *himself* can easily be thought of as an event measure thought of as indicating the end of the path that the bullet will follow. In this way *himself* defines the gauge with which the event is measured.

[51] Having addressed the internal argument that is not introduced by a preposition, the next question to ask would be how to aspectually characterize the internal arguments that are introduced by prepositions. Tenny (1994) and Ramchand (2003) provide arguments as to why these arguments should be characterized with the aspectual property of being a "terminus" or "resultee." For my purposes, however, I abstract away from this matter as Blackfoot's morphological verb classes only make distinction with respect to two arguments, corresponding roughly to one external argument, and one internal argument. The Blackfoot verbal complex likewise only has systematic head-marking to indicate two arguments – the person prefixes and the direct/inverse markers,51 so although ditransitive predicates are possible, they do not differ morphologically from monotransitives. As I have not yet devised methods of testing the semantic properties of DP/NPs that are not systematically indicated on the verbal complex, I (admittedly arbitrarily) declare them to be outside of the scope of this paper.

each other via temporal notions, Blackfoot relates the VP and vP sub-events to each other via notions of person/participancy. As for how this is implemented, I suggest that the separate sub-events associated with separate functional phrases within the VP-domain, are related according to the semantic properties of the arguments introduced by each functional phrase. For English, the relevant semantic properties for the arguments introduced are temporal/aspectual, but for Blackfoot, the relevant semantic properties for the arguments introduced are properties of participancy/agency. I argue that by adopting the proposal above, one can derive the well-known verb classes – i.e., Vendler's aspectual verb classes with respect to English, and Bloomfield's II/AI/TI/TA verb classes with respect to Blackfoot. And just as the English verb classes are sensitive to the grammatical properties of the argument introduced – i.e., whether the argument introduced by VP is mass, count, plural, etc., Blackfoot verb classes are sensitive to the grammatical properties of the argument introduced – i.e., whether the argument introduced by VP is animate or inanimate. In the following section I go through some syntactic and semantic consequences for my proposal, but first I will take a step back to try and get a look at the general gestalt I am trying to sketch. The picture emerging from the above proposal can be schematized as in (108):

(108) Schematic of UG's parametric role-assignment in major syntactic domains

Univeral Grammar:

VP		IP		CP
Event Roles	→	*Grammatical Roles*	→	*Discourse Roles*
(__, __)		(__, __)		(__, __)

English:

VP (temporal)		IP (temporal)		CP (?)
Aspectual Roles	→	*Case Roles*	→	*Discourse Roles*
(initiator, measure)		($subject_{NOM}$, $object_{ACC}$)		(topic, focus)

Blackfoot:

VP(participancy)		IP(participancy)		CP(?)
Event Participant Roles	→	*Utt. Participant Roles*	→	*Discourse Roles*
(partic1, partic2)		(+SAP, -SAP)		(topic?, focus?)

The idea is that clause-structure in natural language universally breaks down into three main domains – VP, IP and CP, and that for each of these domains, roles must be assigned to arguments. . For the VP-domain, event-roles must be encoded. This is comparable to the GB notion of thematic roles like AGENT, THEME, GOAL, etc. In the IP-domain, grammatical roles must be encoded. Grammatical roles correspond to the notions of 'subject' and 'object,' where 'subject' is defined as an nominal that bears structural nominative case, and 'object' defined as an nominal that bears structural accusative case. As for the CP-domain, this is the domain where discourse roles like 'topic' and 'focus', (however defined), are encoded. This much is not new. The innovation lies in adopting and extending the proposal of Ritter & Wiltschko 2005, such that *the way in which a language manifests these roles in each syntactic domain can differ parametrically*. Thus in the VP-domain of English, event/thematic roles are cast temporally as aspectual roles. Likewise, if we follow Pesetsky & Torrego 2002 in assuming that Case is uninterpretable tense on D, then in the IP-domain of English, grammatical roles can also be cast temporally as Case roles. Blackfoot, on the other hand, I argue, casts its VP-domain event roles according to a notion of participancy, encoding event participant roles. And following Ritter & Wiltschko 2005, I argue that Blackfoot's IP-domain also casts its grammatical roles according to a notion of participancy, encoding distinctions of speech-act-participancy.

As a note, Ritter & Wiltschko (in prep.) have also suggested that the direct/inverse markers are a person-oriented parallel to aspect – however they propose that the direct/inverse markers instantiate a person-oriented version of *outer* aspect, in contrast to my proposal that the direct/inverse markers are a person-oriented parallel of *inner* aspect. For my purposes, I follow Dunham (2007) who argues the temporal notions of perfectivity and imperfectivity are obligatory marked in Blackfoot[52]. This becomes relevant for the following section, where I address implications for the proposal sketched above.

3.3 Some Implications for the Analysis

In this section I address implications for the above proposal. I address first some syntactic implications that are related to the unaccusative/unergative distinction. I then address some semantic implications, with respect to the unaccusative/unergative distinction, as well as with respect to Blackfoot's "paratransitives" or "pseudointransitives."

[52] Another relevant note is that Ritter & Rosen have written a paper on Blackfoot event structure. Unfortunately, at this point in writing I do not have access to this paper, and thus cannot assess the degree to which my proposals for Blackfoot event structure are in tune with, or contradictory to, their proposal.

3.3.1 The Unaccusative/Unergative Distinction

Recall the table summarizing how one could derive the II/AI/TI/TA distinction in Blackfoot.

(109) Part2 encodes Relationship between vP and VP

4 kinds of verbs	external (animate) argument (associated with vP)	single (animate) argument (associated with VP)
II	-	-
AI	-	+
TI	+	-
TA	+	+

Notice that according to this table, the subjects of all intransitive verbs is introduced within VP. This predicts, therefore, that all intransitive verbs in BF are 'unaccusative' in the syntactic sense illustrated in (110)a)).

(110)

a) Unaccusative: $[_{VP}$ V NP]

b) Unergative: $[_{vP}$ NP $[_{VP}$ V ∅]])

The question, then, is whether there is any evidence for this. That is, is there any evidence for an unaccusative/unergative distinction in Blackfoot? In the following subsections I look at diagnostics for the unergative/unaccusative distinction in Blackfoot. While the evidence if not conclusive, it is at least suggestive of the notion that Blackfoot lacks a syntactic unaccusative/unergative distinction.

3.3.1.1 Unaccusative/Unergative Distinction: Restrictions on Lexical Causatives

The first diagnostic I address is that of lexical causatives. I assume, following Travis (In Prep:193) that causatives can be divided into two different categories; lexical causatives and productive

(syntactic) causatives[53]. The relevant difference for our purposes is that while lexical causatives are idiosyncratic and non-productive, syntactic causatives are regular and productive. Specifically, while lexical causatives are restricted to applying to syntactically unaccusative verbs, productive causatives hold no such restriction[54]. English has both types; Travis offers the zero-causative as a lexical causative and the *make*-causative as an instance of a productive/syntactic causative. The motivation for this classification can be seen in the following data:

(111)

a) The water boiled
b) Marvin boiled the water
c) The meat froze
d) Marvin froze the meat

e) The child laughed
f) ***Marvin laughed the child.**
g. Marvin made the child laugh.
h. Marvin made Oliver freeze the meat.

While the unaccusative verbs in (a) and (c) can undergo the zero-causative as shown in (b) and (d), unergative verbs cannot, as shown in (f). The data in (g) and (h) show that the productive/syntactic *make*-causative is under no such restriction, being able to apply both to unergative and to transitive verbs. Under the assumption that lexical causatives are an instance of little v (cf. Hale & Keyser 1993, Chomsky 1995), and further assuming that unergatives (and transitives) already have a little v that introduces their single (external) argument, this distributional restriction with respect to lexical causatives and unergatives is unsurprising – the lexical zero-causative competes for the same syntactic position as the little v that unergatives are inherently associated with[55]. Note, however, that if Blackfoot intransitives are all syntactically unaccusatives, as proposed above, this makes a prediction. Namely, because all intransitives in Blackfoot lack a little v projection, having their single arguments introduced in VP, all intransitives in Blackfoot should be able to combine with a little v lexical causative. While I

[53] According to Travis (In Prep), the general framework adopted here, the formal difference between these causatives is that the lexical causative is introduced in l-syntax, while the productive causative is introduced in s-syntax.
[54] Travis draws on evidence from Malagasy and Tagalog to motivate this distinction; thus this is not an English-internal diagnostic.
[55] I'm ignoring the possibility of multiple little vs introducing multiple external arguments.

have not done exhaustive testing, this does appear to be the case. In Blackfoot the only restriction on the causative-finals *–áttsi* and *–ipi* is that they attach to *morphologically intransitive* verbs (Frantz 1991:102)[56]. This can be seen by the data in (112) – both causative morphemes can apply to what we might expect to be "unergatives" like *okska'si* 'run' in (112)b)), and *ihpiyi* 'dance' in (112)d)):

(112)

a) *kitsó'ká**áttsi**aayaawa*
kit-Io'kaa-**áttsi**-a:-yaawa
2-sleep.vai-**caus.vta**-DIR(1/2>3)-3PL
"You put them to sleep."

b) nitáókska'si**ipi**ooka
nit-á-okska'si-**ipi**-o:k-wa
1-IMPF-run.vai-**caus.vta**-INV-3
"He makes me run."

c) kítso'káá**pi**aayaawa
kit-Io'kaa-**ipi**-a:-yaawa
1-sleep.vai-**caus.vta**-DIR(1/2>3)-3PL
"You put them to sleep."

d) nítsspiy**áttsi**aawa nitána
nit-ihpiyi-**áttsi**-a:-wa n-itan-wa
1-dance.vai-**caus.vta**-DIR(1/2>3)-3 1-daughter-3
"I made my daughter dance" (Frantz 1991:103)

Assuming that the causative morphemes *ipi* and *áttsi* are instances of little v, the fact that they can occur with semantically unergative verbs like *ihpiyi* 'dance' and *okska'si* 'run' is unsurprising if all intransitive verbs in Blackfoot are syntactically unaccusative – i.e., if these semantically unergative verbs are not inherently associated with a little v projection. Note that as *ipi* and *áttsi* are restricted to

[56] I am not certain as to what the difference between the causative finals are. Note, however, that both of these appear able to attach to the same verb – in (a) *áttsi* attaches to *Io'kaa*, 'sleep,' and in (c) *ipi* attaches to the same verb.

applying to intransitive verbs, they cannot be analyzed as productive causatives like the English *make*-construction.

3.3.1.2 Unaccusative/Unergative Distinction: The Telic/Atelic Distinction

The second diagnostic I turn to is semantic one - Dowty's Correlations. Dowty's correlations boil down to the observation that the unaccusative/unergative distinction often maps onto the telic/atelic distinction.

(113) Dowty's Correlations (Dowty 1991, as cited in Borer 2005:35)

Agentive, **Atelic**: definitely **unergative**
Non-Agentive, **Telic**: definitely **unaccusative**

Thus an unergative predicate is associated with a default atelic reading, and an unaccusative predicate is associated with a default telic reading. This correlation can be exemplified in the following data from Hebrew and Italian.

(114) The correlation of unergative-atelicity and unaccusative-telicity

Hebrew

a) *ha.praxim* *nablu* *le-Rani/li*
the.flowers wilted to-rani/me
"Rani's/my flowers wilted"

b) *ha.praxim*$_1$ *nablu* *lahem*$_1$
the.flowers wilted to.them
"The flowers were wilting (implies self-directed motion)"

Italian

c) *Gianni* *ha* *corso*
Gianni has run

d) *Gianni* *e* *corso* *a* *casa*

Gianni is run to home

(Borer 2005:32)

In (a)) the Hebrew verb *nabal* "wilt" is interpreted as both unaccusative and telic. In (b) the exact same verb is interpreted as both unergative and atelic. Similarly, in (c), the Italian verb *correre* "run," is interpreted as atelic, and it takes the unergative auxiliary *avere* "have". In (d) the same verb with the introduction of a telicity-inducing endpoint, is interpreted as telic, and it takes the unaccusative auxiliary *essere* "be".

This correlation, while robust, is not perfect. For example, several researchers map the unaccusative/unergative distinction onto notions of outer aspect, as opposed to inner aspect – i.e., unaccusativity correlating with perfectivity, instead of telicity (cf. Aljović 2000). The relationship between the two kinds of aspect is not new - for instance, the Imperfective Paradox has long been used as a standard diagnostic for telicity. Likewise, although correlations between the nominal domain and event domain are often couched in terms of inner aspect and telicity – i.e., the count-telic/mass-atelic correlation (cf. Verkuyl 1972, Dowty 1972), in some languages, notably Slavic languages, it is a perfective/imperfective distinction that maps onto a count/mass distinction. Yet another relationship between the two kinds of aspect is formalized in Bohnemeyer & Swift (2004), who argue that the default viewpoint aspect (perfective/imperfective) is determined by the telicity of the predicate.

Taking the above generalizations into account, then predicts that if all intransitive verbs in Blackfoot are syntactically unaccusative, then their default semantic interpretation will be associated with some kind of telicity, or perfectivity. There is evidence supporting this - Reis-Silva & Matthewson (2007) argue that all Blackfoot eventives unmarked for viewpoint aspect (i.e., overt imperfectivity) are interpreted as *perfective*.

(31)

a.	*nítsskiita*			b.	*nitáihkiita*
	nit-ihkiita		1-		nit-**á**-ihkiita
cook.vai					1-**IMPF**-cook.vai
	≠ ‘I am cooking.’	IMPF			= ‘I am cooking.’
	= ‘I cooked.’	PERF			= ‘I was cooking.’

(32)

a. *oma pita ipaawani*
oma píítaa ipaawani
3DEM eagle fly.up.vai
≠ 'That eagle is flying up.' IMPF
= 'That eagle flew up.' PERF

b. *oma pita aipaawani*
oma píítaa **á**-ipaawani
3DEM eagle **IMPF**-fly.up.vai
= 'That eagle is flying up.'
= 'That eagle was flying up.'

(33)

a. *nitsíkooysskaa*
nit-ii-okooyi-hkaa
1-?-house-acquire
≠ 'I am building a house.' IMPF
='I built a house.' PERF

b. *nitáokooysskaa* nit-**á**-okooyi-hkaa
1-**IMPF**-house-acquire
='I am building a house.'
='I was building a house.'

(Reis-Silva & Matthewson 2007:3-4)

It should be noted that Reis-Silva & Matthewson argue that this is a *tense* distinction. They argue, contra Ritter & Wiltschko (2004, 2005) that Blackfoot has obligatory tense morphemes – one indicating past and one indicating an instantaneous present, but that both of these morphemes are phonologically null. They show, however, that this apparent tense distinction only shows up when the predicate is perfective – i.e., with predicates unmarked for imperfectivity. The examples in (b) show that the correlating imperfective-marked predicates lose this distinction. For my purposes, I assume that the distinction encoded the (a) examples is a perfective/imperfective distinction, as opposed to a syntactically represented present/past tense distinction, and that the tense-interpretations are inferred from an (outer) aspect-driven system in the sense of Bohnemeyer & Swift (2004).

Recall that Bohnemeyer & Swift (2004) suggest that default outer aspect in some languages (German, Inuktitut, Russian) is determined by the telicity of the predicate.

(115) Preferred Correlation:

unaccusative → telic → perfective

unergative→ atelic → imperfective

Thus when a predicate is telic, unless it is otherwise marked for outer aspect, it will be interpreted as perfective. Similarly, if a predicate is atelic, unless it is otherwise marked for outer aspect, it will be interpreted as imperfective. Bohnemeyer & Swift derive their correlations semantically, but they note that the implementation of such an aspect-driven system is not always determined solely by semantic means. For example, they suggest that Yukatek Mayan is a "lexicalized" version of a language with telicity-governed outer aspect. This can be illustrated as follows. Consider the predicate *kim* 'die,' which is semantically telic, and likewise morphologically inflects as if it is telic – i.e. in its unmarked form it is interpreted as perfective(116)a)), whereas it has to be overtly marked for imperfectivity (116)b)). Consider then when the verb *kim* combines with non-quantized noun phrase like *máak* 'people.' This results in a semantically atelic predicate. It still behaves morphologically, however, as if it is "telic" – i.e., its default interpretation, is still perfective, and it must be marked overtly for imperfectivity (Bohnemeyer & Swift 2004:275)

(116) *Yukatek Mayan*

a)

*k-u=kim-**il***

impf-a.3-die-**inc**

"He dies/is dying"

b)

*h=kim-**a**ih*

prv=die-**cmp**-b.3.sg

"he died"

(Bohnemeyer & Swift 2004:275)

Reis-Silva & Matthewson (2007) argue that Blackfoot does not behave like an aspect-driven system as described in Bohnemeyer & Swift – i.e. Blackfoot overtly marks imperfectivity on *all* of its predicates, whether they are semantically telic or not. They thus reject an aspect-driven approach to Blackfoot. But if default outer aspect can be derivable from non-semantic means, as in Yukatek Mayan, then Blackfoot can be analyzed as a similarly aspect-driven system, except that *all* of its intransitive predicates are morphosyntactically[57] specified as "telic" due to their uniformly unaccusative syntactic structure[58].

[57] I use the term "morphosyntactically specified" as opposed to "lexicalized" because I adopt a Hale & Keyser (1993, 2002) approach to the lexicon – i.e., where lexical relationships are derived via a syntactic component. More specifically, I adopt a framework where "a bit of the lexicon has slipped into the syntax" as per Travis (In Prep:218). Thus while lexical items are related within a syntactic component (l-syntax), this syntactic component is different from standard syntax (s-syntax) in that it is associated with more idiosyncrasies. For Travis, the division between l-syntax and s-syntax is also structural – l-

As a note, Reis-Silva & Matthewson (2007) leave unresolved in their analysis the issue of why semantically atelic activity predicates are interpreted by default as perfective (or past, in their analysis). Their analysis is predicated on the idea that Blackfoot has a phonologically null present tense morpheme which indicates an *instantaneous* present tense (following Bennett & Partee 1978's analysis of English). Assuming the definitions of perfective and imperfective as in (117) and (118), a present perfective event would require that the entire event fit within the utterance time. However, because events normally cannot fit within instantaneous moments, a present perfective interpretation is disallowed, accounting for the default past interpretation of eventive predicates(recall that Reis-Silva & Matthewson suggest that Blackfoot also has a phonologically null past tense morpheme).

(117) Perfective: Event time inside reference time (e.g., *I danced yesterday).*

[[**perfective**]] = λ P λ t $\lfloor$e [P(e) & τ(e) $\subseteq$ t]

(Reis-Silva & Matthewson 2007:2, citing Kratzer 1998a, Klein 1994)

(118) Imperfective: Reference time inside event time (e.g., *I was dancing at 5 o'clock).*

[[**imperfective**]] = λ P λ t $\lfloor$e [P(e) & t $\subseteq$ τ(e)]

(Reis-Silva & Matthewson 2007:2, citing Kratzer 1998a, Klein 1994)

With their analysis, Reis-Silva & Matthewson predict that only predicates with the subinterval property, as formalized in (119), can be interpreted as present in Blackfoot.

(119) A predicate p of times has the subinterval property iff for all times t, for all subintervals t' of t, the truth of p(t) entails the truth of p(t').

(Dowty 1979; cited in Copley 2002:18)

---

syntax indicates the lower part of clause structure, little vP and below, while s-syntax indicates the higher part of clause structure, EP (event phrase, which directly dominates vP) and above.

[58] I am assuming that the relevant syntactic property associated with "telicity" i.e., the relevant syntactic property that induces default perfective aspect, is the presence of an internal argument. Thus transitives in Blackfoot are likewise predicted to have a default perfective reading, which appears to be the case.

This prediction works for stative predicates, which have the subinterval property and can be interpreted as either past or present, but their prediction runs into a problem with activity predicates, which by default are interpreted as past (perfective in my analysis)[59].

Recall, however, that I have proposed that where several other languages syntactically encode temporal/aspectual distinctions of telicity, Blackfoot instead encodes distinctions of participancy. In effect, I am arguing that the telic/atelic distinction is not syntactically encoded in Blackfoot. The problem with semantically atelic activities, then, would fall out from the fact that Blackfoot is not grammatically sensitive to these specific notions of temporal sub-event relations, or to the aspectual verb classes derivable from them. For my analysis, then, it is imperative that default outer aspect be derivable from non-semantic means, as in Yukatek Mayan. I thus suggest that although Blackfoot builds event structure caring only about encoding notions of *participancy,* the functional head that encodes outer aspect only sees arguments in what would normally be a telicity-inducing syntactic position – i.e., a syntactically unaccusative structure[60]. The functional head therefore uses perfective as its default outer aspect.

3.3.2 A Distinction between Morphological Transitives and Pseudotransitives

Another consequence for the proposal above relates to the distinction that Bloomfield originally makes between syntactic (in)transitivity and morphological (in)transitivity with respect to Algonquian languages. Bloomfield, and Frantz following him, assume that the II/AI/TI/TA verb classes mentioned above are morphological, and not syntactic classes. Thus Frantz presents a distinction between "morphologically transitive" verbs, and "syntactically transitive" verbs, where a verb is "morphologically transitive" if it shows inflectional agreement with an object, and a verb is "syntactically transitive" if it has the ability to occur with an object (Frantz 1991:41). This allows for a potential mismatch - some verbs which morphologically inflect as AI verbs (morphologically intransitive verbs with an animate subject) have the ability to occur with an overt object. These "paratransitive" or "pseudo-intransitive" verbs are thus "morphologically intransitive", as they do not show agreement with an object, yet are "syntactically transitive" according to Frantz's definition. (120)

[59] Reis-Silva & Matthewson suggest that this can be resolved if they assume that Blackfoot activities lack the subinterval property. They suggest how this can be conceptualized (I will not go into details, see their paper for their particular proposals), but concede that there is still work to be done on solving the puzzle with activities.
[60] Or, generalizing for transitives as well, a structure with an argument as complement to V.

shows examples of these paratransitive verbs – the verb inflects only for the subject, and not for the object.

(120)

a) ***nít****ohpommaa* *nááp**i**oyii*
nit-ohpommaa náápioyi-i
1-buy.vai house-non.partic
"I made a house-purchase."

b) áóoyiyaawa owái
á-ooyi-yaawa owá-i
IMPF-eat.vai-3PL egg-non.partic
"They are eating egg(s)."

(Frantz 1991:41)

My proposal, however, formalizes the morphological classes as being represented syntactically (within the event domain – i.e., within Hale & Keyser's notion of l-syntax, cf. Travis In Prep). I thus suggest that a Blackfoot verb should be defined as *morphosyntactically transitive* if it *must* indicate an object, whether this object is indicated by an overt object, or indicated morphologically on the verb[61]. If a verb *need not* occur with an object, whether this object is indicated by an overt nominal or indicated morphologically on the verb, then it is *morphosyntactically intransitive*. For Blackfoot this functionally translates to Frantz's morphological distinctions of transitivity, however I use the term "morphosyntactic" for two reasons. First, as mentioned above, I think that these morphological distinctions are represented syntactically. Making a terminological distinction between "morphological" and "syntactic" transitivity would be counter to the spirit of my proposal. Second, I argue that while Frantz characterizes these paratransitives as "syntactically transitive," they are not actually syntactically transitive as they do not require an object to be grammatical. Because these verbs are in fact grammatical without an object (as shown in (121) – they indicate an object neither with

[61] Although to my knowledge, morphosyntactically transitive verbs will *always* be indicated morphologically on the verb, whether or not an overt object is present. Thus, in practice, morphological marking is the relevant indication of morphosyntactic transitivity.

morphology nor with an overt object), they appear to be syntactically saturated without one – i.e., these paratransitives are actually intransitive predicates that require only one argument.

(121)

a. *nítohpommaa*
nit-ohpommaa
1-buy.vai
"I purchased (something unspecified)."

b. *áwaaniiwa*
á-waanii-wa
IMPF-say.vai-3
"He's saying (something)."

(Frantz 1991:41)

Thus if or when an "object" *does* appear (as in (120)), it follows that this "object" does not act to syntactically saturate the verb – i.e., it is not a syntactic argument, but an adjunct.

Now, assuming that differences in the syntax map onto differences in the semantics, my proposal predicts that the "object" that appears with a paratransitive verb will have different semantic properties from the object that appears with a verb that is both "syntactically" and "morphologically" (in my terminology, "morphosyntactically") transitive[62]. Where the object of a morphosyntactically transitive verb would act as a proper argument of type e for the predicate, the "object" of the paratransitive verb should not. There is clear empirical evidence to support this prediction- notice that Frantz characterizes paratransitive verbs as "AI verbs which may occur with a **non-particular** object." (Frantz 1991:41, emphasis mine). Non-particular nouns, if you recall from chapter 1, lack overt demonstratives and are characterized by the fact that they are "non-referring" or "non-particular in reference" (Frantz 1991:10). Thus these "non-particular" forms are used when a speaker does not have a specific referent in mind, or when a speaker "*cannot refer* to an actual entity." (Frantz 1991:10). Another important characteristic of non-particular nouns is that "it does not matter if the speaker is talking about one or more than one item" (Frantz 1991:10). I argue that these properties – the non-

[62] Thanks to Rose-Marie Déchaine for pointing this out to me.

referentiality and the lack of number distinction - suggest that the "object" that can occur with these "paratransitive" verbs is in fact, not an argument of type e, but rather a predicate/property of type <e,t>, which combines with the "paratransitive" verb via Restrict (cf. Chung & Ladusaw 2004)

To lay out my position more clearly, I assume that in Blackfoot

i) morphosyntactic transitivity must be satisfied via functional application of an argument of type e.

ii) semantic transitivity may be satisfied either via functional application of an argument of type e, or via existential closure, and that

iii) before existential closure, a nominal may combine with the predicate via Restrict (cf. Chung & Ladusaw 2004)

With these assumptions, I am suggesting that paratransitives, while semantically transitive, are morphosyntactically intransitive. Assuming that combining a morphosyntactically intransitive predicate with an overt DP (an expression of type e) is ruled out by the morphosyntax for the same reason that expressions like (122) are ruled out in English, there is only one option left to satisfy the semantic transitivity – existential closure.

(122) *Mary loves the dog the cat.

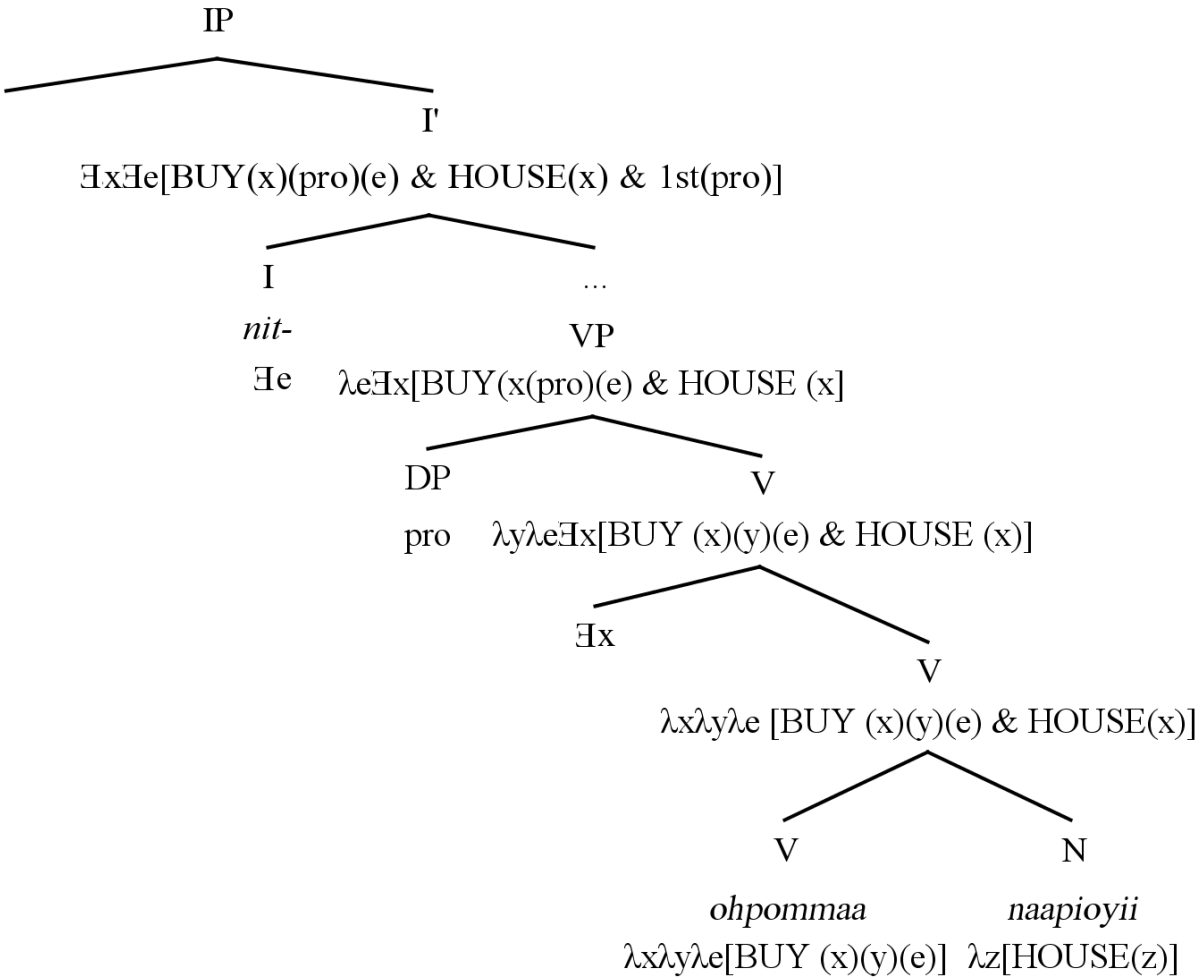
Before existential closure, however, a nominal of type <e,t> may, or may not, combine with the predicate via Restrict[63]. This accounts for why a paratransitive verb may, but need not, occur with an

[63] An issue brought up by Duk-Ho An is why this option is not available for true transitives (in Blackfoot), and also why this option is not available for English intransitives. As for English, Chung and Ladusaw argue that this option is unavailable for English due to Case-theory – i.e., "*John fed a dog Fido" is ungrammatical because both "a dog" and "Fido" are nominals that require case, but that English only allows marking of accusative case once. In the framework I adopt here, one of those nominals would have an uninterpretable tense feature that remains unchecked, causing the derivation to crash. As for Blackfoot, the question is whether or not an utterance like below is grammatical – and if it is not, whether it can be ruled out by independent means.

(6) nitsinow**a** **(ninai)**
nit-ino-**a** **(ninaa-i)**
1-see.vta-**dir1>1** **man-nonpartic**
"I man-saw him."

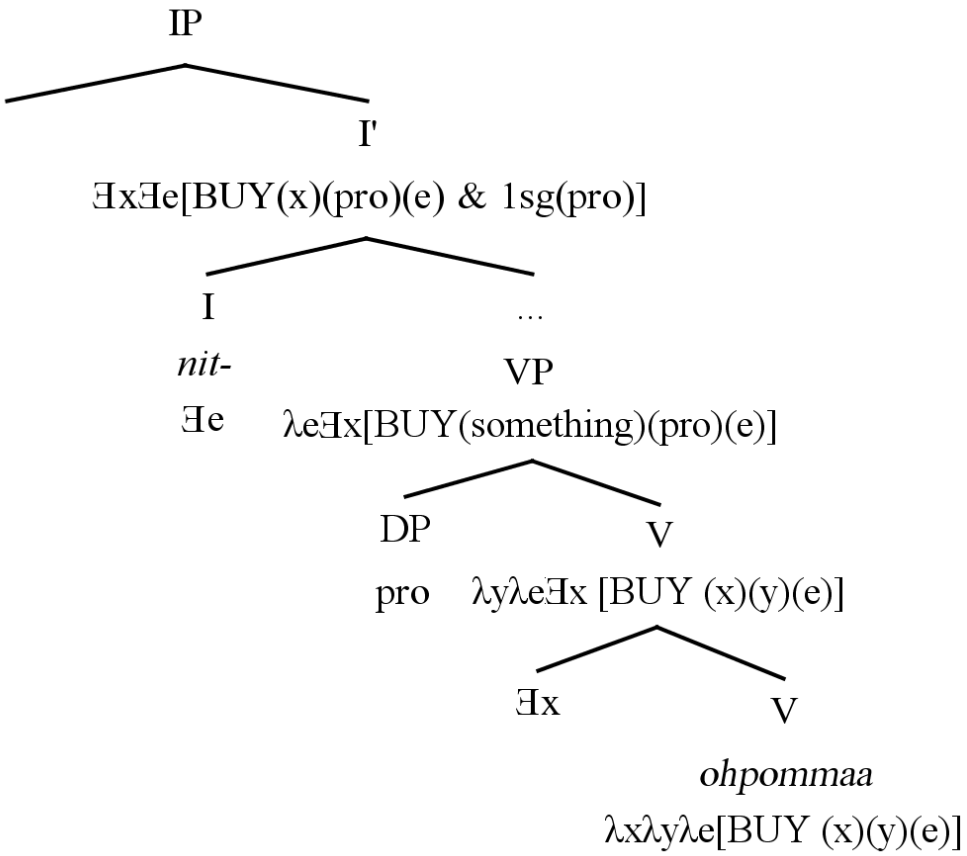
overt object, and why if it does occur with an overt object, it must be “non-particular” in nature. The semantic composition of a "paratransitive" verb would thus be either as in (124)123) – where a nominal has combined with the paratransitive via Restrict, or as in (123)124) – where no application of Restrict has occurred:

(123) Composition for *nit-ohpommaa nááapioyii* “I made a house-purchase”



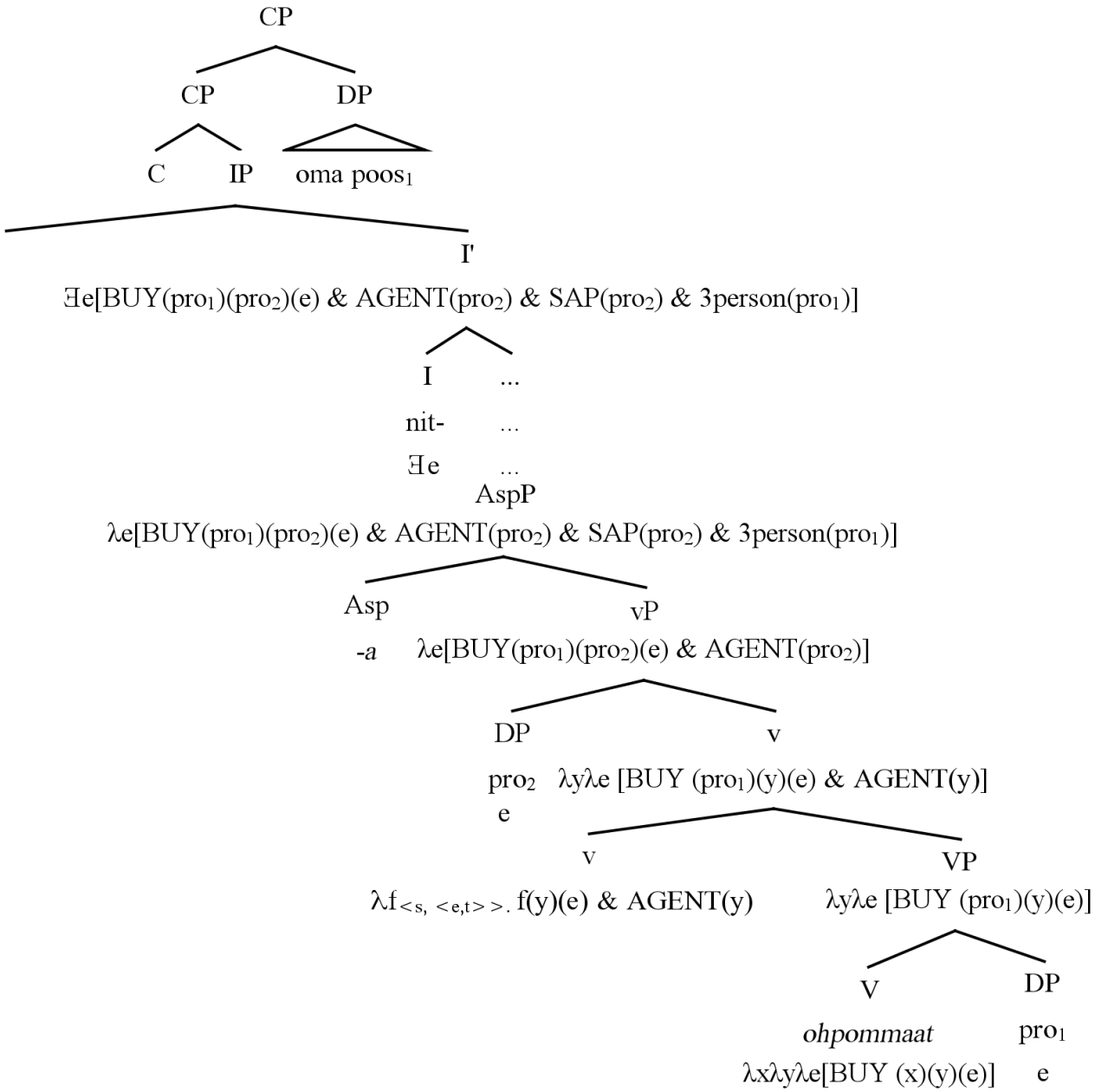
This is empirical issue, which I leave for further investigation.

(124) Composition for *nit-ohpommaa* “I purchased (something unspecified)”



This contrasts with the semantic composition of a true transitive verb, as schematized in (125):

(125) Composition for *nit-ohpommat-a (oma poos)* "I purchased that cat"



(126) Satisfying Morphosyntactic and Semantic Transitivity in Blackfoot

	TRANSITIVE VERB (125)	"PSEUDOTRANSITIVE" WITH "OBJECT" (123)	"PSEUDOTRANSITIVE" WITHOUT OBJECT (58)
MORPHOSYNTACTIC TRANSITIVITY	Satisfied via FA	N/A (intransitive)	N/A(intransitive)
SEMANTIC TRANSITIVITY	Satisfied via FA	Satisfied via ∃-closure, with Restrict	Satisfied via ∃-closure

In the end, my analysis does not differ much from that of Frantz - "paratransitives" are still examples of an interface mismatch. However, to make this mismatch compatible with the syntax proposed, I have shifted the mismatch from the morphology-syntax interface to the (morpho)syntax-semantics interface.

3.4 Summary of Chapter Three

The main claim of this chapter is that Ritter & Wiltschko's (2005) analysis, accounting for the different inflectional properties of Blackfoot and English (their Parametric Infl Substantiation hypothesis), can also be extended to the lower clausal domain – i.e., Event Structure, or l-syntax. Where Ritter & Wiltschko (2005) argue that Infl, the functional phrase that universally encodes the relationship between the speech event, and the event being spoken about, can differ in its content cross-linguistically, I argue that AspP, the functional phrase that universally encodes the relationship between the vP and VP subevents, can likewise differ in its content cross-linguistically. In parallel to Ritter & Wiltschko's approach, I argued that where English sub-events are related via temporal notions –i.e., inner aspect, Blackfoot sub-events are related via notions of participancy. In adopting this analysis, independently attested verb classes for both languages can be derived in a parallel manner – Vendler's aspectual classes for English, and Bloomfield's II/AI/TI/TA verb classes for Blackfoot. I further showed that the implications of this proposal can account for some semantic puzzles – i.e., why Blackfoot eventive predicates, including activities, are by default interpreted as perfective, and why in Blackfoot the "object" of a "pseudointransitive" verb is semantically distinct from the object of a true (morphosyntactically) transitive verb.

In the next chapter I argue that Ritter & Wiltschko's original proposal – i.e., that Blackfoot anchors events to the speech utterance via Participants as opposed to via Tense - also has its own semantic consequences. In particular, I look at a possible relationship between the different instantiations of Infl and assertions of existence. I argue that these semantic consequences hold for both the clausal and nominal domain.

4.0 CHAPTER FOUR: CONSEQUENCES FOR EXISTENTIAL ASSERTIONS

In this chapter I argue that there are further semantic consequences for the lack of syntactic Tense in Blackfoot. In semantic compositions, existential event closure is often associated with the Infl node (cf. Higginbotham 1985, 2000). While this generally may be thought as due to the fact that the semantic composition is complete at this point (IP), as no more arguments enter the composition, I suggest that existential event closure can be more closely tied to the syntactic function of Infl – i.e., anchoring the event. By anchoring via Tense, I suggest that you are asserting the existence of an event in order to locate it temporally. I then suggest that anchoring events to utterances via Participant/Person, differs substantially from anchoring events to utterances via Tense or Location in that anchoring via Person (the speech-act-participants) is inherently subjective, or intensional, whereas anchoring via Tense (the speech time) and Location (the speech location) is objective, being grounded in the actual, extensional world. The assumption here is that anchoring via the speech-act-participants is necessarily associated with a *perspective*, i.e., that of the speaker of the hearer, where subjectivity is identified with having a specific perspective or viewpoint. The use of the term 'subjective' is meant to contrast with the term 'objective', where I assume things to be 'objective' if they lack a relativization associated with a viewpoint/perspective. Tense and Location, are thus objective in that the speech-time and the speech-location, unlike the speech-act-participants, are not inherently associated with a unique perspective/viewpoint[64]. With the above proposal that anchoring and assertions of events are closely related, I argue that assertions of event existence in Blackfoot thus have a different status from assertions of event existence in English, being necessarily mediated and relativized via the perspective of the speech-act participants.

In order to see the consequences for the above proposal more clearly, I look first at a domain where existential assertions are easier to diagnose - the nominal domain. Assuming that the nominal and clausal domain are parallel both in structure, and in the semantic properties they encode, I assume that what holds for events also holds for individuals – i.e., I assume that *entities* in Blackfoot, both events and individuals, are anchored via the Speech-act Participants, as opposed to temporally. Assertions of individual existence in Blackfoot, therefore, also have a different status from assertions of individual existence in English. I show evidence for this claim with respect to Blackfoot negative

[64] Whether or not utterances anchored via Tense and Location are truly objective is a matter for philosophy. I refer only to whether or not they are linguistically/grammatically encoded with a viewpoint (i.e., are linguistically subjective,) or whether they are not linguistically/grammatically encoded with a viewpoint (i.e., are linguistically objective.)

polarity items, whose semantic properties seem otherwise anomalous. In particular, I argue that where NPIs in languages like English show the semantic property of being obligatory narrow-scope with respect to existence, NPIs in Blackfoot show the semantic property of being obligatory narrow-scope with respect to speech-act-participancy. I then look briefly at the rest of Blackfoot's nominal domain, arguing that Blackfoot seems to lack existential assertions on the nominal domain in general, instead encoding notions of speech-act participancy and relying on presuppositions of existence.

4.1 Asserting the Existence of an Event

In this section I take a step back from looking at the internal structure of events in Blackfoot and instead focus on the event as an atomic entity/object. Obvious questions that arise with this agenda can be formulated as follows: What is an event? What are its characteristics? Is there even any evidence for the linguistic notion of event? In order to answer these questions I first provide an introduction to the notion of an event argument (cf. Davidson 1967) and then detail further arguments for treating this abstract notion of an event as a linguistic reality (cf. Davidson 1967, Przepiórkowski 1999, Rothstein 1995). I then consider how Ritter & Wiltschko's syntactic account of event-anchoring might affect the semantic properties of event-anchoring in Blackfoot.

4.1.1 Davidson 1967: The Event Argument e

The introduction of the event argument to linguistics has its roots in the work of Davidson 1967. Davidson (1967) was mainly concerned with sentences like the following:

(127) Jones buttered the toast slowly with a knife in the bathroom at midnight.

The question regarding the above sentences is how to account for the adverbials – i.e., how to represent them semantically. One option is to treat the adverbials as arguments. A standard representation of the sentence in (127), under this treatment, would be represented by a logical form as in (128):

(128) BUTTER(J, the toast, slowly, with a knife, in the bathroom, at midnight)

The problem with this type of analysis is that it requires a multiplicity of predicates. Consider the following sentences:

(129) Jones buttered the toast slowly with a knife in the bathroom.
(130) Jones buttered the toast slowly with a knife.
(131) Jones buttered the toast slowly.
(132) Jones buttered the toast.

For each of the sentences in (127), and (129) – (132), we would have to posit a different lexical item "butter$_v$," each of these "butter$_v$"s differing according to their valency. Where "butter$_v$" in (127) is a six-place predicate, "butter$_v$" in (129) would be a five-place predicate, and "butter$_v$" in (130) would be a four-place predicate, etc. This poses a serious problem for learnability – a child acquiring the language would have to memorize an infinite number of lexical items.

Another (albeit less damning) problem with treating adverbials as arguments is that it fails to take into account entailment patterns that can be noted for (127), (129) – (132), namely the fact that (127) entails (129), which entails (130), which entails (131), which in turn entails (132). Under the above analysis, these entailments facts are coincidental. Noting this property of entailment, a plausible direction as to the treatment of adverbials can be found in the treatment of adjectives[65]. The standard analysis of a statement like (133) is the representation in (134), where adjectives are treated as conjoined predicates.

(133) A big, red, inflated balloon.

(134) $\exists x$ [BIG(x) $\wedge$ RED(x) $\wedge$INFLATED(x) $\wedge$BALLOON(x)]

The relevant entailment facts for (133) (i.e., that a big, red inflated balloon is a red inflated balloon, which is an inflated balloon, which is a balloon) are easily captured by representing the adjectives through the first order logical relation of conjunction. First order logic holds that the truth-value of a conjunction is true, if the truth-value of its conjuncts are also true. This means that dropping conjuncts

[65] I refer here to nice and simple categorematic adjectives like "red", as opposed to syncategorematic (and more problematic) adjectives like "tall", using Quine's (1985) terms. Quine defers the analysis of syncategorematic adjectives to other researchers (cf. Wheeler 1972) and I follow suit.

will not affect the truth-value of the resulting proposition. This entailment pattern is schematized in (135).

(135) a) $(p \wedge q \wedge r \wedge s) \rightarrow p \wedge q \wedge r$

b) $(p \wedge q \wedge r) \rightarrow p \wedge q$

c) $(p \wedge q) \rightarrow p$

The logical representation in (134) is thus subject to the same entailment pattern schematized in (135), accounting for the noted entailment facts.

(136)

a) $(BIG(x) \wedge RED(x) \wedge INFLATED(x) \wedge BALLOON(x)) \rightarrow RED(x) \wedge INFLATED(x) \wedge BALLOON(x)$

b) $(RED(x) \wedge INFLATED(x) \wedge BALLOON(x)) \rightarrow INFLATED(x) \wedge BALLOON(x)$

c) $(INFLATED(x) \wedge BALLOON(x)) \rightarrow BALLOON(x)$

If the entailment pattern of (133) can be accounted for by an analysis as in (134), an obvious course of action would be to adapt this type of analysis for the treatment of adverbials, as (127) and (133) show parallel entailment patterns. An obstacle, however, in co-opting this type of analysis, as noted by Quine (1985), is that where the representation of nominals like "$toast_N$" refer to an object, x, that can be the argument of several predicates in conjunction, the representation of verbs like "$butter_v$" lacks similar reference to an object that could serve as an argument, verbs typically being viewed as a relationship, or property (cf. Montague 1969), held between individuals (i.e., the arguments). Davidson's solution was to simply posit the existence of an object that verbs like "$butter_v$" could refer to – the object he proposed was the event object, e. The representation of a verb thus contained reference not only to its participant arguments (eg. agent, theme), but also to an event argument. A standard two-place predicate like "$butter_{v,}$" which has open positions for a butter-er and a butter-ee as arguments, with this provision, is reanalyzed as a three-place predicate "$butter_{v,}$" which has open positions for a butter-er, a butter-ee,

and an event, as arguments. The sentence in (127) can thus be represented as in (137), such that the entailment facts follow straightforwardly as in (138).

(137) BUTTER (J, the toast, e) ∧ SLOW(e) ∧ W-KNIFE(e) ∧ IN-BATHROOM(e) ∧ AT-MIDNIGHT(e)

(138)

a) BUTTER (J, the toast, e) ∧ SLOW(e) ∧ W-KNIFE(e) ∧ IN-BATHROOM(e) ∧ AT-MIDNIGHT(e)
→ BUTTER (J, the toast, e) ∧ SLOW(e) ∧ W-KNIFE(e) ∧ IN-BATHROOM(e)

b) BUTTER (J, the toast, e) ∧ SLOW(e) ∧ W-KNIFE(e) ∧ IN-BATHROOM(e)
→ BUTTER (J, the toast, e) ∧ SLOW(e) ∧ W-KNIFE(e)

c) BUTTER (J, the toast, e) ∧ SLOW(e) ∧ W-KNIFE(e)
→ BUTTER (J, the toast, e) ∧ SLOW(e)

d) BUTTER (J, the toast, e) ∧ SLOW(e)
→ BUTTER (J, the toast, e)

A question to ask at this point is whether the above analysis necessitates positing an event argument. The predicate-like nature of adverbials could instead be modeled as functions which take other functions as their arguments, thus evading the necessity of positing the existence of an event object e. Under this analysis, “slowly” would take the denotation of “butter” as its argument, and “with-a-knife” would take the denotation of “slowly” as its argument, etc. This is represented below in (139).

(139) (AT-MIDNIGHT (IN-BATHROOM (WITH-KNIFE(SLOWLY (BUTTER (Jones, the toast))))))

This matter is addressed in Higginbotham (2000). The problem with this option is that it require a proliferation of greater semantic types. Assuming “$butter_v$” to be a predicate of type <e<e,t>>, “slowly” would have to be of type <<e<e, t>>,t>, and “with-a-knife” would have to be of type <<<e<e,t>>,t>,t>, “in-the-bathroom” of type <<<<e<e,t>>,t>,t>,t>, etc. Positing the existence of an event argument position in predicates (and a corresponding semantic type, s, the semantic type for events), Higginbotham argues, is more economical.

To summarize to this point, Davidson (1967) proposes the existence of an event object, such that verbs take an event object as an argument, just as they take individual objects, like agents and themes, as arguments. One difference that is significant for my purposes, however, is that in simple sentences, where traditional argument positions can be satisfied via functional application of an argument of type e, the event argument position cannot be satisfied via functional application of an argument of type s. The event position must be satisfied via existentially binding/existential closure (Kearns 2000:180). I return to this point later, first going over some further developments regarding evidence for the existence of an event object.

4.1.2 Further Evidence for the Event Argument e

In the previous section, I summarized Davidson's motivation for positing the existence of events as a first-level linguistic objects, on par with the existence of individual objects. The purpose of this section (4.1.2) is to provide further evidence that there exist event objects parallel to individual objects. The evidence provided here is predicated on the assumption that if both events and individuals are the same type of linguistic object, then the grammar should treat them in a parallel manner- i.e., events should be manipulated by the grammar in the same manner that individuals are. I address two way sin which natural language manipulates individual objects: one, natural language makes reference to individuals, and two, natural language quantifies over individuals. If we assume the existence of an event object, parallel to individual objects, we then predict that there is likewise evidence that natural language makes reference to, and quantifies over, events. In this section I summarize some of the evidence that has been brought forth to support this prediction. An important clarification before proceeding, however, is that while several researchers make a clear distinction between events and states, for the my purposes I abstract away from this difference. Thus while I use both the terms "event" and "eventuality[66]", unless otherwise noted, it is not a conscious decision. Setting this distinction aside, I first address some arguments that natural language makes reference to events, (just as it makes reference to individuals), and then address some arguments that natural language quantifies over events (just as it quantifies over individuals).

[66] Where eventuality is a cover term for both events and states (Bach 1981).

4.1.2.1 Reference to Events

One basic way of determining whether language makes reference to events is to see whether events can support anaphora – in fact, Davidson (1967) uses evidence from *it*-anaphora to motivate positing events as first-class linguistic objects. Some caution is required here, however, as *it*-anaphora are quite promiscuous with respect to selecting antecedents, as noted by Asher (1993). So what seems like anaphora referring to events may actually be reference to propositions, or to facts. To clearly determine whether or not there is reference to events, we first have to determine the differences between the events, propositions and facts. As one criteria, Davidson (1967b) argues that only events, and not facts or propositions[67], can enter into causal reactions. Similarly, Przepiórkowski (1999) assumes that only events, and not propositions or facts, can last for a period of time. Under these assumptions, data like (140) [68] show that eventualities, like individuals, can support anaphora.

(140) a) John asked Mary to the party. <u>It</u> made her depressed.

b) John thought Mary liked him. <u>This</u> lasted until he asked her to the party.

(Based on examples from Przepiorkowski 1999:1)

Another way of determining whether or not language makes reference to events is to determine whether or not they can, like individuals, support relative clause modification. Przepiórkowski (1999) uses specific contexts from Asher (1993) in order to i) show that eventualities can support relative clause modification, and ii) argue that they are therefore linguistic objects[69]. Asher's contexts – propositional contexts and factive contexts - provide a way to distinguish between propositions, facts and eventualities; he argues that propositions, and not eventualities, can occur in the "X is true" context, and similarly that facts, and not eventualities (or propositions) can occur in the "X is shown by" context. Przepiórkowski thus uses data like (141), to show that eventualities, like individuals, can support relative clause modification. Because the relevant example is infelicitous in Asher's propositional and factive contexts, as shown in (141)b) and c), Przepiórkowski argues that the wh-relative clause in data like (141), by the process of elimination, must make reference to an event.

[67] It should be noted, however, that Asher (1993) has questioned whether or not this is true – he notes that it appears that facts can also be spoken about as if they can enter into causal reactions. See Bennett (1988), however, who argues that causal talk does not undermine Davidson's generalization.

[68] His purpose, actually, is to show that negative eventualities, not eventualities, constitute linguistic objects. His evidence, of course, works equally well for non-negative eventualities.

[69] Again, his purpose is to show that negative eventualities, not eventualities, constitute linguistic objects.

(141) a) John kissed Mary, which made her angry.

b) John kissed Mary, #which is true.

c) John kissed Mary, #which is shown by her blushed face.

(Przepiorkowski 1999:3)

4.1.2.2 Quantification Over Events

There have also been several arguments that natural language shows quantification over events[70] (cf. Lewis 1975, Rothstein 1995.) As an example, Rothstein (1995) analyzes a certain kinds of adverbial as quantifiers over events. The relevant adverbials are shown below – these all have the structure of an NP, consisting of the quantifier "*every*" a nominal complement "*time*" and a relative clause (Rothstein 1995:3):

(142) a) I met a friend every time I went to the bakery.

b) Every time I went to the bakery, I met a friend.

c) I regretted it every time I had dinner with John.

d) Every time I had dinner with John, I regretted it.

(Rothstein 1995:1)

(143) a) For every time/event of my going to the bakery, there was a time/event of my meeting a friend.

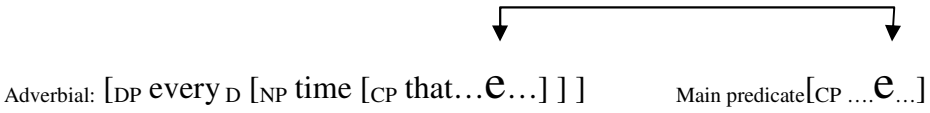
b) For every event of my having dinner with John, there was an event of my regretting that dinner event.

(Rothstein 1995:1)

[70] While I am abstracting away from the difference between events and eventualities, the proposals made by these researchers do differ according to whether they propose quantification over events or eventualities. Lewis (1975), for instance, argues that unselective adverbial quantifiers like "always" quantify over eventualities (he uses the term "cases") since they may also bind statives. Rothstein (1995), on the other hand, argues that that the adverbials she deals with are only cases of quantification over eventives, excluding statives (Rothstein 1995:6)

As Rothstein notes, each of the examples in (142) can be paraphrased as in (143), such that the sentence is true if for every event denoted by the relative clause in the "every time…" adverbial matches with an event denoted by the main predicate. Rothstein terms this one-to-one event correspondence "the matching effect," and the goal of her paper is to account for this phenomenon.

(144) The Matching Effect



Rothstein adopts a Neodavidsonian framework. The difference between a Davidsonian and Neodavidsonian framework is that whereas a Davidsonian framework maintains thematic roles like agent and theme as arguments of the verb, in a Neodavidsonian framework, the notions of agent and theme are represented similarly to conjoined adverbials. A sentence like (145) would thus have a Davidsonian representation as in (145)a), but a Neodavidsonian representation as in 145)b):

(145) Jones buttered the toast

a) DAVIDSONIAN: BUTTER(Jones, the toast)

b) NEODAVIDSONIAN: BUTTER(e) ∧ Ag(e)=Jones ∧ Th(e)=the toast

Thematic roles are thus treated as functions from events to individuals - they take the event variable as their argument, and yield the individual denoted by nominal. The relevant Neodavidsonian development for Rothstein's purposes is the treatment of prepositional adverbials. Like thematic roles, Parsons (1990) treats prepositions like functions from events to individuals - they take the event variable as their argument, and yield an individual from the denotation of their NP complements.

With the above assumptions in place, Rothstein's proposal can be broken down as follows:

i) the "*every time*…" adverbials are the complements of a null preposition
ii) this null preposition denotes a function from events to events
iii) this function takes the event argument denoted by the matrix predicate as its argument, and yields as its value an event from the denotation of the nominal [NP time [CP that] complement.

This results in the following semantic representation, where M is the relevant function from events to events:

(146) $\forall e[[\text{RING}(e) \& \text{Th}(e)=\text{THE BELL}]$
$\rightarrow \exists e' [\text{OPEN}(e') \& \text{Ag}(e')=\text{MARY} \& \text{Th}(e')=\text{THE DOOR} \& M(e')=e]]$

(146) basically states that for all events, such that this is an event of bell-ringing, there exists an event of door-opening by Mary, and that these two events are associated via the "match function" M. M is an extensional function whose content is supplied in context, either pragmatically or linguistically. So depending on the context, M could be interpreted as a "response" function, a "causative" function, or a "temporal" function, etc. Rothstein argues that where there is no pragmatic context to supply M, the sentence falls back to a basic numerical function "there are at least as many A's as B's." Examples of each of these functions are shown in (147)

(147) a) RESPONSE: Every time the doorbell rings, Mary opens the door.
b) CAUSATIVE: Every time I watch a horror movie, I get nightmares.
c) TEMPORAL: Every time Bill buys a donkey, John sells one.
d) NUMERICAL: Every time you eat, someone starves.

The relevance of the above discussion, for our purposes, is that Rothstein's account crucially makes reference to the domain of event objects. First, the "every time…" adverbials are predicates which take the event variable associated with the main predicate they modify as their arguments. And secondly, the universal in the "every time…" adverbial quantifies over the domain of events.

While the above arguments by Davidson (1967) and Rothstein (1995) are focused on the semantic representation of adverbials, the theoretical gain from positing the existence of an event objects is not just limited to accounting for adverbials. For example, Kratzer (1988) and Diesing (1992) suggest that the difference between Stage-Level Predicates (SLPs) and Individual-Level Predicates (ILPs) can be captured theoretically according to whether or not a predicate has a event argument (SLPs) or not (ILPs). Kratzer (1998) also suggests that the appearance of intermediate-scope indefinites (pseudoscope) can also be accounted for by appealing to event quantification. While I do

not go into these applications of the event variable here, each of these applications contribute to the goal of this section – i.e., justifying the existence of event objects.

4.1.3 Tense/Infl and Existential Closure

Having reviewed the reasons for permitting the existence of a theoretical linguistic event object parallel to individual objects, I turn now to a difference between events and individuals. The difference I address here regards the different options available to events and individuals with respect to satisfying a verb's argument structure. A common assumption is that while a verb's individual arguments can be satisfied via either functional application of an argument of type e, or existential closure (cf. Chung & Ladusaw 2004), the only option for satisfying a verb's event argument is via existential closure (cf. Kearns 2000, Higginbotham 2000). The point of interest for my purposes is that existential closure, or existential binding, of the event-variable is often associated with the syntactic node Infl. Higginbotham (2000), for example, suggests that the temporal interpretation of Infl is obtained by existential closure, as per (148), where e' is "anchored to the utterance time or some other time in a narrative, and ϕ represents the interpretation of the VP." (Higginbotham 2000:54)

(148) $[_{INFL}$ + past VP]

$[\exists e{:}e<e']\ \phi(e)$

There are also empirical reasons to assume that existential closure of the event variable is associated with Infl/Tense. These reasons depend primarily on correlations with morphological tense, where I assume morphological tense to be the overt instantiation of the syntactic node Infl/Tense. Note the following examples from Higginbotham (2000)[71]:

(149) Mary reluctantly left

(150) Mary was reluctant [PRO to leave]

[71] See also S. Huang 2005, and Tsai 2008 for connections between morphological/syntactic tense and licensing the event-variable.

Higginbotham uses the sentence in (150) to determine the theta-grid of the adverbial "reluctant" in (149), arguing that while "reluctantly" and "reluctant" have different syntactic properties, they have the same semantic projection properties[72] (Higginbotham 2000:61). Higginbotham also notes, however, that "reluctant" and "reluctantly" differ with respect to other semantic properties - while "reluctantly" is factive, such that Mary had to have left in order for (149) to be felicitous, "reluctant" is neutral with respect to the factivity of its complement –Mary may or may not have left. This discrepancy can be seen in (151) – whereas (149) is incompatible with a following discourse that indicates that Mary did not leave, this is not the case for (150):

(151) a) Mary reluctantly left, #so I let her stay for the night.

b) Mary was reluctant to leave, so I let her stay for the night.

I suggest that the morphosyntactic differences between 149) and (150) can account for the difference in factivity[73]. Consider (149) and (150), repeated here as (152) and (153):

(152) Mary reluctantly left

(153) Mary was reluctant [PRO to leave]

Note that while the predicate "leave" is morphologically marked as past in (152), in (153) the predicate "leave" is non-finite and lacks morphological tense marking, such that we can correlate the absence of morphological tense with the lack of commitment that Mary left. This correlation holds for other tensed/un-tensed pairs as well – note that where the non-finite examples in (154) lack morphological

[72] By my understanding, this means that they take the same number and type of semantic arguments.

[73] Higginbotham suggests that this difference is presuppositional – according to his judgments, a speaker uttering (7) is still committed to Mary's having left.

(7) Mary didn't leave reluctantly.

Note, however, that this is not necessarily a presuppositional difference – Simons (2001) argues that the (so-called) presuppositions associated with change-of-state predicates, and factive predicates, differ significantly from the presuppositions of triggers like "even," "too," and "again." These presupposition are "contextually defeasible"with the proper contexts. Suppose we are crime-scene investigators, and we are searching for the a missing woman, presumed kidnapped. There are signs of a struggle. I start to suspect, however, that the signs of struggle look too staged. However, I don't know for sure that she left the crime-scene (she may have been murdered, and concealed in a well-hidden spot, eg. under the floorboards.) In this context, I could say "Maybe, she didn't leave reluctantly," without presupposing that the woman has left.

tense marking, and correlating lack speaker commitment to the existence of an event denoted by the tenseless predicate, the finite examples in (155) are overtly marked for tense, and correspondingly, commit the speaker to the existence of an event denoted by the tensed predicate[74].

(154)

a) I wanted her [to bake this lychee cake.][75]

b) I told him [to toast the sesame seeds.]

(155)

a) I'm disappointed that [she baked a coconut cake.]

b) I'm relieved that [he toasted the sesame seeds.]

c) She baked a coconut cake.

d) He toasted the sesame seeds.

The generalization is that where there is morphological tense marking, there is commitment to the existence of an event denoted by the predicate. Where morphological tense marking is lacking, there is a lack of commitment to the existence of an event denoted by the predicate.

(156) The Correlation between Morphological Tense and Existential Event Assertions

- Morphological tense ~ Assertion of Event Existence
- Lack of morphological tense ~ Lack of assertion of event existence

In the vein of Higginbotham (2000), the above correlation between Tense and existential assertions of events is not surprising. Recall, following Enç (1996), and Ritter & Wiltschko (2005), that the function of the syntactic node Tense is to temporally anchor the event being spoken about to the utterance, or some other relevant reference point. Temporal anchoring involves either i) asserting that the time of the event coincides with the speech time (present tense), or ii) asserting that the time of the event does not coincide with the speech time (past tense). In other words, the speaker either asserts that

[74] Note that this does not preclude the possibility of the existential operator being within the scope of another scope-bearing element, eg. a modal.

[75] Standard analyses place the non-finite "to" in the head of Tense. Whether the non-finite "to" may actually be the syntactic realization of a lower functional phrase (cf. Travis In Prep's "Event Phrase," Pollock 1989), I take no stand on. The only necessity here is that non-finite "to" does not act to temporally anchor the event the way morphological tense does.

an event is occurring during the speech time, or the speaker asserts (in most cases) that an event occurred before the speech time. In doing this, however, the speaker cannot avoid asserting the existence of the event. A speaker cannot assert an event to occur during the speech time, or to occur before the speech time, without ipso facto asserting that the event exists[76]. Assuming that morphological tense is a morphological instantiation of the syntactic node Tense, its presence indicates that the event being spoken about is being somehow temporally anchored. It then follows that when morphological tense is present, the speaker is asserting the existence of an event. Correspondingly, with no morphological tense signaling temporal event anchoring, the existence of an event need not be asserted.

The first question of interest for my purposes is this: What if a language's anchoring node is not instantiated with temporal content? I.e, what if you have a language like Blackfoot? I suggest that the properties of an existential event assertion in Blackfoot differs substantially from the properties of an existential event assertion in a language that anchors via tense or location because anchoring via Participant/Person is inherently different than anchoring via time (or location). The reason for this line of thinking is that while both Time and Location can, ostensibly, be regarded as objective, extensional, real-world concepts, Person as a category is inherently subjective and intensional. Thus while anchoring an event *temporally* requires the speaker to make an assertion about an objective, extensional world, anchoring an event via Person does not. Whatever the speaker's intentions, the grammar does not require the speaker to assert that an event exists in the real, extensional world, because anchoring via Person inherently imparts an intensional perspective, or viewpoint. To clarify, I define something as "subjective" if it is associated with a perspective or viewpoint. Something is "objective" if it is not subjective, i.e., if it is not associated with a viewpoint or perspective. Person, as a category referring to speech-act-participancy, is inherently associated with a perspective/viewpoint – i.e., that of the speech-act-participants. I am thus arguing that Person, as a category, must be subjective, and cannot be objective. Tense and Location, as categories that refer to the objective world, need not be associated with a perspective/viewpoint (i.e., the speech location doesn't have a unique perspective, the speech-time doesn't have a unique perspective, while in contrast, the speech-act participants do have a unique perspective). I am thus arguing that Tense and Location, as anchoring categories, need *not* be subjective. This means that they can be objective. This is the sense in which I use "ostensibly" – because *grammatically*, anchoring via Tense and Location does not encode a viewpoint. Whether or not

[76]exists, i.e., takes up some portion of space-time, or is spatio-temporally extended, in the actual world (cf. Quine 1985:1967)

it is possible for an utterance to actually be objective is a matter for philosophy – my point is that utterances anchored via Tense and Location are not grammatically encoded with a viewpoint, i.e., they are linguistically objective. Utterances anchored via Person on the other hand, *are* grammatically encoded with a viewpoint (that of the relevant Person), and are thus (linguistically) subjective.

The second question of interest for my purposes is this: Does Blackfoot shows evidence for the above intuition - that the existential assertions of events in Blackfoot differs substantially from existential assertions of events in English? I argue that there is evidence to this effect, and that actually, the semantic consequences for existential assertions extend further than to just events. Recall that much of the justification used for positing the existence of an event object relied on drawing from parallels in the nominal domain – i.e. parallels with individual objects. Following this line of parallelism, any semantic difference hypothesized for a Blackfoot event objects should also hold for individual objects. Thus I assume that Blackfoot *entities* in general, where the term entity covers both individuals and events, are anchored differently than English entities[77]. The difference I propose is that where entities in English need be anchored via objective/extensional means (time), entities in Blackfoot need be anchored only via inherently subjective/intensional means (person). Presuming these different anchoring options to be the "independent variables" in an experiment, I have above hypothesized that existential event assertions ought to be the "dependent variable" in the clausal domain – i.e., the properties of existential event assertions are predicted to vary between English and Blackfoot. Following suit, existential assertions for individuals should be the "dependent variable" in the nominal domain – i.e., the properties of existential individual assertions are predicted to vary between English and Blackfoot. In the following section I argue that there is in fact empirical evidence for this - that the semantic properties asserted while anchoring individuals in Blackfoot are considerably different than the semantic properties asserted when anchoring individuals in Blackfoot.

4.2 Consequences for Existential Assertions in the Nominal Domain

The main piece of evidence I offer as indicative of the significant difference between anchoring individuals temporally, versus anchoring via person/participancy, lies in the atypical semantic behaviour of Blackfoot's Negative Polarity Items (NPIs). In the following section I outline the

[77] While Ritter & Wiltschko (2005) do not address the semantic consequences for existential assertions that I address here, they also argue that their proposal holds for individuals as well as events (i.e., all entities). As evidence, they review Blackfoot's demonstrative system. I will summarize this aspect of their argument in section 4.2.2.

behaviour of Blackfoot's non-affirmative endings, showing that while they syntactically distribute like NPIs, they lack the core semantic characteristic of NPIs – i.e., unlike most NPIs cross-linguistically, Blackfoot's non-affirmative endings do not show the property of being existentially narrow-scope. I argue that this falls out from the above proposal that Blackfoot anchors individuals via person/participancy, as opposed to temporally. I then show some empirical evidence that Blackfoot's non-affirmative endings are, like other NPIs, narrow-scope, but that the relevant semantic property within the scope of negation is not one of *existence*, but one of *speech-act-participancy.* Following this I look more closely at the rest of Blackfoot's nominal domain, and suggest that Blackfoot lacks existential assertions on its nominal domain in general, relying either on i) existential presuppositions, or ii) existential force from verbal predicates.

4.2.1 Negative Polarity Items in Blackfoot

4.2.1.1 *Blackfoot's Non-Affirmative Endings distribute syntactically like NPIs*

There are three main defining characteristics of NPIs. One of these is their restricted syntactic distribution. Thus while NPIs can appear in marked non-factual contexts like negated clauses and questions, they are ungrammatical in unmarked positive contexts (Giannakidou 1998, Progovac 1994). This is displayed below with the English NPI *anyone*.

(157) English Polarity Item 'any(one)'

a)	I didn't see anyone	(licensed with negation)
b)	#I saw anyone	(not licensed in positive contexts)
c)	Did you see anyone?	(licensed with questions)

While the NPI *anyone* is grammatical in the negative clause in (157)a), it is ungrammatical in the corresponding positive clause in (157)b). (157)c) shows that *anyone* is grammatical in questions.

(158)

☑ NPIs are ungrammatical in positive contexts.

Blackfoot's non-affirmative endings show a similarly restricted distribution: while the non-affirmative ending *–waatsiksi* may attach to the end of the verbal complex in the negated clause in (159)a), it is ungrammatical in the corresponding positive clause in (159)b). (159)c) shows that the non-affirmative ending is grammatical in questions.

(159) *Blackfoot Non-affirmative Endings*

a) *ni**máát**sinowa(**waatsiksi)*
ni-**maat**-ino-a-**waatsiksi**
1-**NEG**-see.vta-DIR-**3:nonaff.SG**
"I didn't see him." (licensed with negation)

b) *nitsínowa**(*waatsiksi)***
ni-ino-a-**(*waatsiksi)**
1-see.vta-DIR-**(*3:nonaff.SG)**
"I saw him." (not licensed in positive contexts)

c) *ki**katá**i'nok(**aatsiksi)?***
ki-**kata'**-ino-ok-**waatsiksi**
2-**Y/N**-see.vta-INV-**3:nonaff.SG**
"Did he see you?" (licensed with questions)

This dependency is often described in terms of "licensing". Thus in (157)a) it is negation which licenses the NPI *anyone*; negation is its "licensor."

(160)

☑ Blackfoot's non-affirmatives are ungrammatical in positive contexts.

Another characteristic of NPIs is a structural sensitivity to their licensors. This structural requirement is usually articulated in terms of c-command: NPIs must be c-commanded by their licensor in order to be grammatical (cf. Klima 1964, Baker 1970, Linebarger 1987, Progovac 1994). This is represented in (161) below. In (161)a), negation c-commands the NPI *anyone*, and the sentence is grammatical. In (161)b), however, negation does not c-command the NPI *anyone*, and the resulting sentence is ungrammatical.

(161) *English Polarity Item 'any(one)' is structurally sensitive*

a) I didn't see anyone. b) #Anyone didn't see me

The question then arises as to whether Blackfoot's non-affirmatives are likewise structurally sensitive to their licensors.

(162)

☑ NPIs are sensitive to the structural position of their licensor.

I argue that they are. While Blackfoot's non-affirmative endings are licensed in negative statements where negation takes the form of *máát-,* they are not licensed in negative statements where negation takes the form *sá.* This is shown in (163) below: where the clause is negated by *maat-* in (163)a), the non-affirmative ending is grammatical; but where the clause is negated by *sa-* in (163)b), the non-affirmative ending is ungrammatical.

(163) Blackfoot's non-affirmatives are licensed by máát- but not sá-

a)	*Niyookskaiiksistsikoists*	***máát****otootsi(****waatsiks****)*
	Niyookskai-iksistsiko-istsi	**máát**-oto-otsi-**waatsiks**
	Three-day-0PL	**NEG**-go.to-swim.vai-**3:nonaff.SG**
	"He didn't swim for three days"	
b)	*Niyookskaiiksistsikoists*	*it****sá****otootsi(*****waatsiks****)*
	Niyookskai-iksistsiko-istsi	it-**sa**-oto-otsi-**waatsiks**
	Three-day-0PL	rel-**NEG**-go.to-swim.vai-**3:nonaff.SG**
	"He didn't swim for three days"	

Now, negation in the form of *maat-* generally has wider scope than negation in the form of *sá-: máát* is normally used to negate independent clauses, while *sá* is used to negate dependent clauses (Déchaine &

Wiltschko 2001). This can also be demonstrated with the examples in (163)[78] . While the *máát*-negated clause in (163)a) is independent, and therefore may stand alone grammatically (as in 163)a)164)a)), the *sá*-negated clause in (163)b) is dependent on the overt time adverbial *niyookskaiiksistsikoistsi* 'three days', and therefore cannot stand alone grammatically. This is shown in (164)b).

(164)

a) ***máát**otootsi(**waatsiks)***
máát-oto-otsi-**waatsiks**
NEG-go.to-swim.vai-**3:nonaff.SG**
"He didn't swim "

b) **it**sá**otootsi*
it-**sa**-oto-otsi
rel-**NEG**-go.to-swim
Target: He didn't swim

More standard examples of *sá-* negating dependent clauses follow in (165), which shows that clauses dependent on a matrix clause must be negated with *sá-* (as in a)), and cannot be negated with *máát-* (as shown in b)).

(165)

a) nitsikohsst ninaahk**sa**onowayuúmsi
nit-ik-oh-sstaa ni-aahk-**saw**-onowa-oomi-hs-yi
1-ints-?-want.vai 1-n.fact-**NEG**-ever-husband.vai-cj-cj
"I hope I never get married at all."

b) *nitsikohsst ninaahk**maat**onowayuúmsi
nit-ik-oh-sstaa ni-aahk-**maat**-onowa-oomi-hs-yi
1-ints-?-want.vai 1-n.fact-**NEG**-ever-husband.vai-cj-cj
Target: "I hope I never get married at all."

[78] although see their paper for further evidence

Thus where *máát*-negation negates independent propositions (as in (163)a)), *sá-* negation does not. I suggest that this indicates a scope difference, because while *máát-* can be characterized as taking scope over an entire utterance, the negation contributed by *sa* in the dependent clause does not have scope over an entire utterance as it does not have scope over the element upon which the clause is dependent (in some cases, an overt time adverbial, in other cases, a matrix clause). Further evidence that *maat-* takes wider scope than *sá-* comes from the fact that when *sá-* is used in independent clauses, negation does not have scope over the entire proposition. This is shown by the data in (166): *sá*-negation is required in independent clauses when a wide-scope-bearing element like *ááhkama'p* 'might' prevents negation from having scope over the entire proposition[79,80,81].

(166)

a) *kikááhkama'p**sa**yinowa*
ki-aahkama'p-**sa**-ino-a
2-might-**neg**-see.vta-dir
"You might not see him."
≠"It is not the case that you might see him" (must mean that there is a chance you'll see him)

b) **ki**maat**ááhkama'pinowa*
ki-**maat**-aahkama'p-ino-a
2-**NEG**-might-see.vta-DIR

c) **kitááhkama'p(a)**maat**sinowa*
kit-aahkama'p-**maat**-ino-a
2-might-**NEG**-see.vta-DIR

[79] Thanks to Amelia Reis-Silva, for eliciting the example in (166)d) for me.
[80] Duk-Ho An suggested to me that if *máát-* and *sá-* are in structurally different positions, we would expect different locality conditions with respect to Quantifier Raising. However, as far as I know, there is no reason to posit a transformation like QR in Blackfoot, as utterances with multiple scope-bearing elements are not scopally ambiguous, their only interpretation reflecting the surface-order of the morphemes.
[81] A question that arises is why *máát-* negation and *aahkama'p* 'might' cannot occur together in a verbal complex – i.e., why these two stand in a blocking relationship. I speculate that *aahkama'p* and *máát* may need to take the same scope – i.e., widest scope, which is why they cannot occur together. Whether this is a purely semantic requirement of the morphemes (i.e., needing to take widest scope (excepting DPs), which can perhaps be formalized similarly to the ban on vacuous quantification if we treat these scope-bearing-elements like quantifiers and assume that they target the same variable - i.e., the entire utterance), or whether this should be formalized syntactically, I leave for further research.

d) **kit**sa**wááhkama'pinowa*
ki-**sa**-aahkama'p-ino-a
2-**NEG**-might-see.vta-DIR

Assuming that semantic scope correlates to structural position, the above generalizations suggest that *máát-* is structurally higher than *sá-*. Further evidence to this effect can be seen in how *máát-* and *sá-* can co-occur within a clause, contra claims that they are in complementary distribution (cf. Frantz 1991:84, Taylor 1969:307.) If *máát-* and *sá-* are in structurally distinct positions, where *máát-* is in structurally higher position than *sa-*, we would predict i) that *máát-*and *sá-* could co-occur within a clause, and ii) assuming that linear order within the verbal complex reflects structural position, that *máát-* would precede *sá-*. This is in fact the case. As shown by the data in (167), *máát-* and *sá-* can co-occur within a clause, and when they do so, *máát-* precedes *sa-*[82].

(167) Co-occurrence: *máát-* precedes *sa-*.

a) **máát**sitoohkanist**sá**ómo'tsaakiwaatsiksi
máát-it-oohk-aanist-**sá**-omo'tsaaki-waatsiksi
NEG-rel-?-manner-**NEG**-win.vai-3:nonaff.SG
"He didn't lose on purpose."

[82] Note that it cannot be the case that the examples in 167) are bi-clausal, with *máát-* in one clause, and *sá-* in another clause. This is ruled out by morphological considerations. For one, separate clauses in Blackfoot is always accompanied by separate clausal morphology. This is not the case for the examples in 167). Secondly, the non-affirmatives always attach at the right-edge of the clause that *máát-* attaches to, as shown in the bi-clausal data below. If the data in 167) were bi-clausal, we would expect the non-affirmatives to precede *sá-* in linear order.

8) *nimaatoohsstahpa* *ninaaksinowahsi(*waatsiksi)*
ni-maat-oht-sstaa-hpa nin-ááhk-ino-a-hsi-waatsiksi
1-NEG-means-want.vai-loc.nonaff 1-n.fact-see.vta-DIR-CJ-3:nonaff.SG
"I don't want to see him."

9) *nimáátsikaksksinipaatsiks* *ayakomo'tsaayaa*
ni-máát-ikak-ssksini-'p-waatsiks wayak-omo'tsaa-yaa
1-NEG-even-know.vti-loc>0-3:nonaff.SG both-lose.vai-3PL

As another note, there is a biclausal equivalent of 167) – note the embedded clause comes with subordinating morphology:

10) *maatááksikkípaanistska'si* ***ot**sayisttso'kins**si***
máát-áák-ikkipa-aanist-iitska'si **ot**-sa-isttso'kini-**hsi**
NEG-FUT-feign-manner-pretend.vai **3**-NEG-be.hungry.vai-**CJ**

b) ***<u>máát</u>****aaksikkipai'****<u>so</u>****waisttso'kiniwaatsiksi*

<u>máát</u>-aak-ikippa'-**<u>sá(w)-</u>**á-isttso'kini-waatsiksi

<u>NEG</u>-FUT-feign-**<u>NEG</u>**-IMPF-be.hungry.vai-3:nonaff.SG

"He won't pretend to not be hungry."

All of the above generalizations constitute an argument that *máát-* and *sá-* have different syntactic positions, where *máát-* is structurally superior to *sá-*. Under this assumption, the fact that the non-affirmatives are licensed by *máát-*, but not by *sá-* (cf. (163)), can straightforwardly be accounted for if we analyze the non-affirmatives as NPIs which are sensitive to the structural position of their licensor[83].

(168)

☑ Blackfoot's non-affirmatives are sensitive to the structural position of their licensor.

4.2.1.2 *Blackfoot's Non-affirmatives not interpreted semantically like NPIs*

The third generalization about NPIs I address is that NPIs cross-linguistically are interpreted within the scope of their licensing negation (Progovac 1994, Uribe-Ecchevarria 2001). This means that their existential properties are not maintained under negation, and that they are non-referential and unable to pick out any particular existing entities. This semantic property of NPIs is usually analyzed as falling out from their aforementioned structural requirements (i.e., the c-command relation). Because NPIs must always be structurally inferior to negation, they are said to be "narrow-scope" or "in the scope of negation" – their existential properties are always negated. This is illustrated below for the English negative polarity item *anyone*: the existential properties of *anyone* must be interpreted within the scope of negation.

(169) *The existential property of English NPI 'anyone' is within the scope of negation*

I didn't see anyone

a) $= \neg\exists x$ (PERSON(x) $\wedge$ SAW(I, x)

"There does not exist an x, x is a person, and I saw x"

[83] This, of course, requires that the position of the non-affirmative endings with respect to linear order does *not* reflect their structural position within a clause. The fact that the non-affirmative endings are clitic-like, and sensitive to discourse properties indicates that they are, indeed, higher in clause-structure than their surface position suggests.

b) ≠ ∃x (PERSON(x) ∧ ¬SAW (I, x)

"there exists an x, x is a person, and it is not the case that I saw x"

The problem that arises when considering Blackfoot's non-affirmative endings, is that they do not appear to be interpreted semantically within the scope of negation[84]; they maintain their existential properties and are referential. Thus in (170)a) below, the singular non-affirmative ending *–waatsiksi* refers to a referential third-person. (170)b) shows the same property for the plural non-affirmative ending *–waiksaa*.

(170)*The existential property of the non-affirmatives is NOT within the scope of negation*

a)	*nimáátsinowa(waatsiksi)*	*(óma*	*nínaa)*
	ni-maat-ino-a-waatsiksi	(om-wa	nínaa)
	1-NEG-see.vta-DIR-3:nonaff.SG	(DEM-3	man)
	"I didn't see him (the/a man)"		

= ∃x (MAN(x) ∧ ¬SAW (I, x) "there exists an x, x is a man, and I didn't see x"

≠ ¬∃x (MAN(x) ∧ SAW(I, x) "there does not exist an x, x is a man, and I saw x"

b)	*nimáátsinowa(waiksaa)*	*(ómiksi*	*nínaiksi)*
	ni-maat-ino-wa-waiksaa	(om-iksi	ninaa-iksi)
	1-NEG-see.vta-DIR-3:nonaff.PL	(dem-PL	man-PL)
	"I didn't see them (those men)"		
	≠ "I didn't see anyone"		

The subsequent question that arises is whether these elements are in fact NPIs. Because while they distribute syntactically like NPIs, they lack the core semantic property of NPIs – i.e., narrow-scope. I propose that Blackfoot's non-affirmative endings are NPIs, both semantically and syntactically. However the relevant semantic property that is 'negated' is not an assertion of *existence*, but an assertion of *speech-act-participancy*. I further suggest that this falls out from the aforementioned

[84] This may appear contradictory to the conclusions drawn in the above section. The key point in wording here is "appear" – I eventually argue that these elements are in fact both syntactically and semantically within the scope of negation, however, that the relevant narrow-scope semantic property is not one of existence, but one of speech-act-particpancy.

hypothesis that anchoring individuals via Person/Participancy, as opposed to via Tense, has semantic consequences – and in particular, how anchoring via Person/Participancy affects assertions of existence.

4.2.1.3 *Blackfoot NPIs are narrow-scope with respect to Participancy*

One main assumption required to derive this is as follows: to assert that something exists as a physical object (either an individual or an event), is to assert that it takes up some portion of space-time, or is spatio-temporally extended, in the actual world (cf. Quine 1985:1967). Secondly, anchoring an individual (spatio-)temporally asserts which portion of space-time the individual takes up. This entails an assertion that the individual takes up a portion of space-time – i.e. entails an assertion that the object exists. Under the assumption that individuals (as entities) are temporally anchored in English, this entails that the semantic property encoded by the nominal equivalent of an anchoring node[85] in English nominals, is an assertion of existence. Nominals that are necessarily narrow-scope, like NPIs, will thus be necessarily narrow scope with respect to the semantic property of existence. Third, following the proposal of Ritter & Wiltschko (2005), such that Blackfoot entities are not anchored via means of space or time, but instead via a notion of person/participancy, and my proposal that their syntactic proposal has semantic consequences, we might predict the following: where NPIs in English are obligatorily narrow-scope with respect to an existential property, NPIs in Blackfoot should not be, and instead should be obligatorily narrow-scope with respect to a property of speech-act participancy.

Blackfoot shows evidence to this effect. While Blackfoot's non-affirmative endings refer to referential third-persons, they cannot refer to a third person within the deictic sphere. This is illustrated below with the data in (171). While the utterance in (171)a) is usually well-formed, it is infelicitous in the context in which it was elicited – i.e., where the referential third person, *Martina*, was sitting in the room with the speaker and addressee, within the deictic sphere. My consultant offered (171)b) as preferable in this context, where the relevant referential third person to whom the non-affirmative corresponds is explicitly marked as a third person that is outside the deictic sphere.

[85] I.e., the functional parallel of Infl in the structural nominal domain. Recall that I make the assumption that the nominal domain and clausal domain are parallel both in structure, and the semantic properties that they encode. Thus CP maps onto DP, as both are associated with discourse properties, VP maps onto NP, as both are associated with lexical properties, and so forth for whatever functional heads project between CP/DP and VP/NP.

(171) *Blackfoot's non-affirmative endings cannot refer to a third person within the deictic sphere*

(Context: Martina is sitting in the room with us, listening to us talk)

a)	*kíkatáí'nowa(#waatsiksi)*	*aná*	*Martina?*
	ki-kata'-ino-a-waatsiksi	an-wa	Martina
	2-Y/N-see.vta-DIR-3:nonaff.sg	DEM-3	Martina
	"Did you see Martina?"		

b)	*kíkatáí'nowa(waatsiksi)*	*annáhk*	*Martina?*
	ki-kata'-ino-a-waatsiksi	an-wa-hka	Martina
	2-Y/N-see.vta-DIR-3:nonaff.SG	DEM-3-invis[86]	Martina
	"Did you see Martina?"		

(must be referring to some Martina other than one sitting in the room)

Blackfoot's third-person non-affirmative endings thus cannot refer to any third person that is part of the conversation. Because they may only refer to third persons, and therefore cannot refer to the speaker or addressee, the generalization that falls out is that Blackfoot's non-affirmative endings cannot refer to *any* utterance participants.

A issue pointed out to me by Michela Ippolito is that in (171) the relevant scope-bearing-element whose scope the NPIs would be forced within, is not negation but the y/no operator *ikata'-*. Thus you would expect the speech-act-participancy property not to be negated in this context, but to be questioned[87]. Note, however, that the status of the morpheme *ikata'-* as a true y/n interrogative particle may be up for debate. Palmer (1986) observes that interrogatives across languages are marked in several different ways. He notes particularly, that several languages (included the related Algonquian language Menomini), treat interrogatives as a paradigm within their modal systems, and that in such languages the interrogative is "essentially an expression of the speaker's ignorance of the facts, with

[86] I have glossed –hka as 'invisible' following Frantz (1991), but visibility may not be the relevant property; he appends this footnote in his grammar: *"the apparent use of this suffix to mark words referring to entities which are not visible is a consequence of the discourse function of this suffix, which has to do with saliency."* (Frantz 1991:66)

[87] Note that the generalization holds also, of course, for cases where the non-affirmative is licensed by negation *máát-*.

merely the implication that it is hoped that the hearer will supply them." (Palmer 1986:31). He provides the following example from Ngiyambaa to illustrate this phenomenon:

(172) *guya-ga:-ndu* *dha-yi*
fish-ignor-you eat-past
'Did you eat a fish?'/'You ate a fish, I don't know'

(Donaldson 1980:260, 262, cited in Palmer 1986:31, bolding mine)

I suggest that this, or something similar, may be the case for Blackfoot – that while *ikata'-* functions pragmatically as an interrogative, its formal semantic properties are primarily negative, comparable to a dubitative. While more inquiry into this is required, there is suggestive evidence in favour of this analysis. Although *ikata'-* functions as an interrogative prefix in independent clauses, Frantz nonetheless classifies it as an allomorph of negation – he notes that *ikata'-* also functions as a negative prefix on nominalized verbs, as well as functioning as the unmarked form of negation in Blackfoot's unreal/irrealis mode[88] (Frantz 1991:85). Note that this type of phenomenon also happens in dialects of English. The data in (173) is an excerpt from an e-mail, where the word *no*, which has the formal semantic properties of being negative, is used to form the equivalent to a tag-question:

(173) *I know I do tend to be kinda know it all ish... and I should really work on that.... I shouldn't make generalizations I guess.. about whether or not he needs a sub wolfer to play his video games.... but he kinda was defensive no?* [ML: my emphasis]

To summarize this section, above I argued that a semantically anomalous property of Blackfoot's non-affirmative endings can be attributed to the fact that Blackfoot entities are anchored via notions of participancy, as opposed to notions of time or location. Thus the fact that while Blackfoot's non-affirmative endings display all the syntactic characteristics of being NPIs (restricted distribution and structural sensitivity to their licensors), but do not have an existential property that is obligatorily forced within the scope of negation, falls out from the fact that the locus of existential assertions in English – i.e, the (nominal equivalent of an) temporal anchoring node – is instantiated by

[88] i.e., *ikata'-* is used if no morpheme than the person-prefixes precedes negation; otherwise negation takes the form of *sa-*. Thus its distribution in the unreal/irrealis mode is much like that of *maat-* negation in the independent mode.

different content in Blackfoot – i.e., the (nominal equivalent of a) person/participancy anchoring node. Where NPIs in languages like English thus have an assertion of spatio-temporal extent (existence) that is always forced within the scope of negation, NPIs in a language like Blackfoot instead have an assertion of speech-act-participancy that is always forced within the scope of negation.

4.2.2 (The lack of)Existential Assertions on Blackfoot's Nominal Domain

The argument thus far has maintained that the syntactic locus of existential assertions in English – i.e., the nominal anchoring node, in Blackfoot instead encodes notions of speech-act-participancy. A question of interest is this: what about other functional projections in the nominal domain? If the semantic properties of the anchoring node can differ cross-linguistically, such that where English encodes notions of existence Blackfoot does not, it is not inconceivable that some other functional projection might differ between the two languages such that where in English it encodes whatever property it encodes, in Blackfoot it encodes assertions of existence. In this section I look at different levels of functional structure in Blackfoot's nominal domain, drawing data and generalizations from Glougie (2000). While the investigation into this query are still preliminary, evidence so far suggests that Blackfoot's nominal system primarily encodes notions of speech-act participancy, and either i) relies on presuppositions, as opposed to assertions, of existence, or ii) relies on light existential predicates from the verbal domain to assert existence.

4.2.2.1 *DP in Blackfoot*

Ritter & Wiltschko (2005), for instance, argue that Blackfoot's demonstrative system shows that individuals are anchored via notions of speech-act participancy like speaker and hearer as opposed to temporal or locative notions. They point out that the demonstrative stems in (174) primarily express notions of proximity or familiarity to the speaker or hearer, and that the demonstrative suffixes in (175) likewise depend on notions related to the speaker and hearer, as opposed to the time or location of the utterance (Ritter & Wiltschko 2005:350).

(174)

a) *amo* = *proximity to speaker but not addressee*
b) *om* = *proximity to neither speaker not addressee*

c) anno = proximity to th speaker and proximity of familiarity to the addressee

d) ann = proximity or familiarity to the addressee but no proximity to the speaker

e) am = proximity andfamiliarity to speaker

(Frantz 1991:63)

(175)

a) -ma = stationary

b) -ya = moving, but not towards speaker

> *"This gloss is in need of revision. Current research seems to indicate that if motion is involved in the meaning of this suffix it is not necessarily taking place at the time of the speech act […] or even at the time of the process, event or state being described." (Frantz 1991:66 Fn 72 (emphasis ER & MW))*

c) -hka = not visible to the speaker

> *"the apparent use of this suffix to mark words referring to entities which are not visible is a consequence of the discourse function of this suffix which has to do with saliency." (Frantz 1991:66 fn 73 (emphasis ER&MW))*

d) -ka = proximity information in the demonstrative is relative to location of the speaker of addressee a ta time other than the time of the speech act. (Frantz 1991:66. (emphasis ER & MW))

Glougie (2000) analyzes nominal expressions with the demonstratives above as DPs, situating the demonstratives as determiners in the head of D. She also argues, however, that these Blackfoot determiners encode assertions of existence. I concur that the Blackfoot demonstratives encode existence, however I differ with respect to the terminology used. I suggest that in the case of Blackfoot DPs, existence is presupposed as opposed to being asserted.

One of the more common ways of distinguishing assertions from presuppositions is to test for presupposition projection. While presupposed material tends to project through scope-bearing elements like negation, asserted material does not. This can be illustrated by the following minimal pairs. First, it is standardly assumed that cleft-sentences carry a presupposition – so where the sentence in (176)a) asserts that someone bought the car (i.e., Howard), its cleft-counterpart in (176)b) presupposes that someone bought the car.

(176)

a) Howard bought the cat.

b) It was Howard who bought the cat.

Considering now the negated counterparts of (176)a) and (176)b) in (177) below, we can see that they behave differently with respect to whether or not the proposition that "someone bought the car" is maintained under negation.

(177)

a) Howard didn't buy the cat…in fact, no one did.

b) It wasn't Howard who bought the cat…#in fact, no one did.

Where the asserted proposition that "someone bought the car" need not maintain its truth-value under negation in (177)a) – as shown by the fact that it can be felicitously followed up by a proposition asserting that "no one bought the car", this is not the case for the identical, but presupposed, proposition that "someone bought the car" in (177)b). In (177)b), this proposition maintains its truth-value under negation – as shown by the fact that it cannot be felicitously followed up by a proposition asserting that "no one bought the car."

Applying this test to Blackfoot nominals with overt demonstratives, we can see that they maintain their existential force under negation. This is shown by the data in (178). In (178)a), the nominal *oma pitaa* "the/a eagle," is interpreted with existential force. The negated counterpart of (178)a) in 178)b) shows that this existential property is presupposed, and not asserted, as the existential

force of *oma pitaa* is maintained under negation and 178)b) cannot be interpreted as "I didn't see any eagle."

(178)

a)	*nitsinowa*	***oma***	*pitaa*
	nit-ino-a	**om-wa**	pitaa
	1-see.vta-DIR(loc>3)	**DEM-3**	eagle

"I saw an eagle" (eagle can be novel, or familiar)

i. $= \exists x\ (\text{EAGLE}(x) \wedge \text{SAW}(I, x)$

b)	*nimaatsinowawaatsiksi*	***omi***	*pitaa*
	ni-maat-ino-a-waatsiksi	**om-yi**	pitaa
	1-NEG-see.vta-DIR(loc>3)-3:nonaff.SG	**DEM-3'**	eagle

"I didn't see an eagle" (eagle can be novel, or familiar)

i. $= \exists x\ (\text{EAGLE}(x) \wedge \neg\text{SAW}(I, x)$

ii. $\neq \neg\exists x\ (\text{EAGLE}(x) \wedge \text{SAW}(I, x)$

(Examples taken from Glougie 2000:58, modified glosses)

The following example shows the same property holds when the relevant scopal element is the Y/N question operator *ikata'-* . The existential force of the nominal *oma poosa* "a/the cat" is maintained under the Y/N operator, as the question cannot be followed by a statement that directly denies the existential force of the nominal.

(179)

a)	*kikataohpommatsiiwaatsiks*	***oma***	*poosa*
	ki-kata'-ohpommat-yii-waatsiks	**om-wa**	poos-wa
	2-Y/N-buy.vta-DIR(3>3')-3:nonaff.SG	**DEM-3**	cat-3

"Did you buy a cat?"

b) *#...saa, maatstsiipa*
…saa, maat-itstsii-'p-wa
…no, NEG-exist.vii-loc>0-nonaff
"No, there weren't any"

(Examples taken from Glougie 2000:59, modified glosses)

Glougie (2000) also analyses bare plurals in Blackfoot as covert DPs. She shows that unlike bare plurals in English, bare plurals in Blackfoot can only be interpreted generically, and cannot be interpreted with an existential reading. The two separate readings for English bare plurals can be seen by the following example.

(180) I excluded only old ladies.

i) In principle, all old ladies have been excluded. GENERIC
ii) Some old ladies have been admitted, but some have been excluded. EXISTENTIAL

(Longobardi 1994:630, cited in Glougie 2000)

A speaker uttering (180) could thus intend the bare plural “old ladies” to have a generic interpretation, such that every old lady was excluded from the a study on principle. Alternatively, the speaker could intend the bare plural “old ladies” to have an existential interpretation, such that several people were excluded from the study, but all of the people who were excluded happened to be old ladies. On this reading, some old ladies may have been admitted.

Now Blackfoot bare plurals, on the other hand, do not display this ambiguity. In each of the examples below, the bare plural subjects can only have a generic reading, the existential reading being disallowed:

(181)

Intransitive stems

a) individual level

kiaayoks	*iksasskonatapsiyaa*
kiaayo-iksi	iks-a-sskonat-a'psi-yaa
bear-PL	ints-IMPF-strong.bism.vai-3PL

= "**Bears** are strong," ≠ "there are bears who are strong"

b) stage level

kiaayoks	*ikasistsikoyaa*
kiaayo-iksi	ik-a-sistsiko-yaa
bear-PL	ints-IMPF-be.tired.vai-3PL

=?? "**bears** are tired," ≠"there are bears who are tired"

Transitive stems

c. stage-level

ninaiks	*ikskimaatsiiyaa*	*kiaayoks*
ninaa-iksi	ikskimaat-yii-yaa	kiaayo-iksi
man-PL	hunt.vta-DIR(3>3')-3PL	bear-PL

= "**Men** hunt **bears**," ≠ "there are men who hunt bears,"

≠ "Men hunt (only) bears"

d. individual level

annahk	*tsaan*	*aissinamoyi*	***sinaakyaatsists***
an-wa-hka	tsaan	a-sinaa-m-ayi	**sinaakyaat-istsi**
DEM-3-invis	John	IMPF-write.vti-dir(3>0)-DTP	**book-0PL**

= "John writes **books**," ≠ "John writes some books"

(data taken from Glougie 2000:11-12, modified glosses)

According to Laca (1990), the distinction between generic and existential readings of bare plurals can be attributed to a distinction of Focus vs. Non-Focus. In particular, Laca argues that when bare plurals are foci, or part of the focus, they have an existential interpretation. When they are not part of the focused material, they are interpreted generically[89,90]. The relevant connection for our purposes is that non-focused material, or topics, are generally associated with presuppositions (cf. Ladusaw 1994, Giannakidou 1998). In other words, the existential readings of bare plurals are non-presuppositional readings. Now recall that while bare plurals in English may have two readings – one existential (non-presuppositional) and one generic (presuppositional), in Blackfoot only the generic (presuppositional) reading is available. This suggests that while existential force is encoded in Blackfoot DPs, whether in the form of an overt determiner or a covert determiner (i.e., the bare plurals), the relevant existential force is encoded as a presupposition as opposed to an assertion or implicature.

4.2.2.2 *NumP in Blackfoot*

Glougie's main motivation for analyzing bare plurals as covert DPs follows as a consequence of Longobardi's (1994) proposal that nominal expressions can only be interpreted as arguments if they are introduced by the category D. Because bare plurals in Blackfoot behave like argument expressions[91], Glougie therefore analyzes bare plurals in Blackfoot as DPs, introduced by a covert D. Several researchers, however, argue that the presence of other functional projections above NP (not necessarily DP) can be sufficient for the argumenthood of a nominal. For example, Li (1998) argues that in Chinese, a Number Phrase (NumP), where NumP is an intermediate phrase between NP and DP, can stand as an argument. Under this assumption, the bare plural in Blackfoot (or English for that matter) could plausibly be analyzed as a NumP in an argument position, where the plural marking heads the NumP. Whether or not this is the case, however, the functional head houses the plural morpheme for bare plurals in Blackfoot appears to presuppose existence, and not assert it.

There is, however, another functional projection to consider. The NumPs that Li (1998) analyzes as arguments in Chinese consist of a cardinal number and classifier. Borer (2005) separates

[89] She uses the term "inclusive" instead of generic.
[90] Topic and Focus are rather contentiously defined terms. Here I will follow Laca, who follows Wilson & Sperber (1979) in assuming that the focus is "that constituent of the sentence which constitutes the foreground and whose substitution yields the first background entailment of the sentence. " (Laca 1990:35). Elements not part of the focus get generic, presuppositional readings – i.e., topic readings.
[91] in that they trigger verbal agreement, and may either precede or follow the verbal predicate, unlike the bare singular or "non-particular" nominals

these two elements into two distinct functional phrases. One is a classifier phrase (ClP, or DivP, which holds plural marking in non-classifier languages like English, and presumably, Blackfoot). The other is a Quantity Phrase (#P), which houses cardinal numbers. A relevant question to ask, then, is whether or not the functional projection that houses cardinal numbers in Blackfoot encodes assertions of existence. The following examples in (182) show that while nominal phrases with cardinal numbers in Blackfoot have existential force, the cardinal expression cannot alone contribute existential force. Note that the cardinal numbers below obligatorily attach to a light existential verb like *itapii* "be a person," or *waami* "be the one identified" (cf. Frantz & Russell 1989: *waami* vai: be (the one that is identified); *itapii(yi)* vai: live, be a person)

(182)

a) *Maatsistookamma* *oku'siks* *niyookska**itapi**yaa*
Maat-ist-ookamma oko's-iks niookska-**itapi**-yaa
NEG-two-??? 3-offspring-PL three-**be.human.vai**-3PL
"She doesn't have two children, she has three."

b) anaahk nita'kka nituhkokk natok**aami** imitaiks
an-wa-hka n-itákkaa nit-ohkot-ok nááto'k-**waami** imitaa-iks
DEM-prox-invis 1-friend 1-give.vta-INV two-**be.ident.vai** dog-PL
"My friend gave me two dogs."

The fact that cardinal numbers in Blackfoot require a light existential verb suggests that the functional projection housing them in Blackfoot's nominal domain cannot alone contribute an assertion of existence.

4.2.2.3 ***Quantifier Phrases in Blackfoot***

4.2.2.3.1 Weak Blackfoot Quantifiers

Glougie (2000) observes that weak quantifiers in Blackfoot have the same distribution as cardinal numbers – i.e., they cannot occur without first attaching to a light verb with existential meaning.

(183)

a)	*Ik**akáitapii***	*mátapiiksi*	*akainoyiiyaawai*
	Ik-**aka**-**itapii**	matapii-iksi	akaa-ino-yii-yaa-ayi
	ints-**many**-**be.human.vai**	person-PL	N.ST-see.vta-3>3'-3PL-DTP
	"There are a lot of people that have seen him / Many people have seen him"		

b)	*iits**itstsii**p*	*otsinokiks*
	iit-**itstsii**-'p	ot-ino-ok-iksi
	rel-**exist.vii**-loc>0	3-see.vta-INV-PL.NOM
	"Some people saw him" (there exist [$_{CP}$ they saw him]$_{nominalized}$)	

c)	***iitstsi**p*	*matapii*	*niitoohkanistaatstomi*	*matsikists*
	iitstsii-'p	matapii	niit-oohk-aanist-wa'tstoo-m-yi	m-atsikiN-ists
	exist.vii-loc>0	person	gen-?-manner-lose.vti-3>0-0	uns-shoe-0PL
	"There is someone that lost his shoes on purpose"			
	Target: Someone lost their shoes on purpose			

This suggests that the functional projection that houses weak quantifiers[92], like the functional projection that houses cardinal numbers, by itself cannot contribute an assertion of existence[93].

4.2.2.3.2 Strong Blackfoot Quantifiers

Glougie (2000) also observes that strong quantifiers in Blackfoot differ from weak quantifiers. Unlike weak quantifiers, strong quantifiers do not require a light existential verb, but instead attach

[92] Whether or not this may be the same functional projection that houses the cardinal numbers I leave as a question for further research.

[93] Duk-Ho An raises the question of whether these light existential verbs could be analyzed as classifiers. As to this, these do behave similarly to classifiers in that they are required with cardinal numbers and weak quantifiers, attaching to these elements, however there are also several ways in which these elements do not act like classifiers. For instance, these elements inflect and act like normal verbs in that they can take the 3pl ending *–yaawa*, and can be negated by the morpheme *máát-*; these are properties that are restricted to verbal complexes in Blackfoot, as they do not hold true of nominals. Secondly, classifiers are usually associated with languages that lack dedicated plural marking (eg. east-asian languages), or if they exist in a language with plural marking, they are in complementary distribution with plural marking (eg. Albanian, cf. Borer 2005a). Neither of these options are the case for Blackfoot.

directly to the main verb. She shows this for the quantifier *wayak* "both," and the universal quantifier *ohkan*[94].

(184)

a) *nit-**wayak**-ino-a-nnaan* *niyookskaa-itapii* *matapi-iksi*
1-**both**-see.vta-3>3'-1PL three-be.human.vai person-PL
"We **both** saw three people"

b) nit-**ohkan**-okskaas-hpinnaan
1-**all**-run.vai-1PL
"We **all** run"

c) om-iksi ninna-iksi **iihkan**-ino-yii-yaa om-yi piitaa
DEM-PL man-PL **all**-see.vta-3>3'-3PL DEM-3' eagle
"Those men **all** saw that eagle"

d) an-wa aak-**ohkan**-ohpomaat-yii om-iksi poos-iksi
DEM-3 FUT-**all**-buy.vta-3>3' DEM-PL cat-PL
"He will buy **all** those cats"

(Data from Glougie 2000)

A question to ask is how one can theoretically account for the distributional difference between strong and weak quantifiers in Blackfoot. I suggest that this distributional difference can be aligned along the theoretical distinction between presuppositions and assertions of existence.

The relevant theoretical machinery required for this alignment is the following generalization: whereas strong quantifiers presuppose the existence of their domains, weak quantifiers are ambiguous

[94] *ohkan* has the word-initial allomorph *iihkan*. Although the details of this are not well understood by the author, this initial/non-initial ii ~ o alternation is common for many morphemes in Blackfoot.

between asserting and presupposing the existence of their domains (Geurts 2007:263[95], cf. De Jong & Verkuyl 1985). Geurts (2007) assumes this characterization of strong and weak quantifiers based on the following data. In the context where both speaker and hearer are aware that there are no Swiss matadors, Geurts observes, following Lappin & Reinhart (1988), that the utterances with strong quantifiers like (185) are judged infelicitous by speakers. Being infelicitous, they cannot be given a value of either true or false.

(185) Strong Quantifiers

a) **Every Swiss matador** adores Dolores del Rio

b) **Most Swiss matadors** adore Dolores del Rio

→ Judged infelicitous (Examples from Geurts 2007:253)

The assumption here is that the infelicity of the examples in (185) fall out due to presupposition failure. Because the strong quantifiers presuppose the existence of their domains, their use in a context that maintains the non-existence of their domains is infelicitous. In contrast, with the same context, utterances with weak quantifiers like (186) are judged by most[96] speakers as felicitous, and therefore compatible with a truth-value (false for(58)a), and true for (58)b)).

(186) Weak Quantifiers

a) **Some Swiss matadors** adore Dolores del Rio

b) **No Swiss matadors** adore Dolores del Rio

→ Judged as true or false (Examples from Geurts 2007:253)

The assumption here is that because weak quantifiers do not presuppose the existence of their domains, no presupposition failure transpires. This accounts for why the examples in (186) are felicitous in comparison to those in (185). Geurts also provides further evidence that strong quantifiers presuppose the existence of their domains with the examples in (187). These examples show that the assumption

[95] Note that for Geurts, presupposition don't just require that their domain be non-empty; presuppositions act to "recover a suitable referent from the context" (Geurts 2007:19-20). This is to account for the fact that presupposition failure does not always result in infelicity. He adopts Strawson's approach that presupposition failures only result in infelicity when the presupposed element is discourse topic.

[96] Geurts notes that for some speakers, these examples are also infelicitous, but that this is not the majority view. (Geurts 2007:253)

that there exist swiss matadors – i.e., the proposition that the domain of the strong quantifiers exist - shows the property of presupposition projection. The requirement that there exist Swiss matadors projects through the conditional in (187)a), the Y/N operator in (187)b) and the imperative construction in (187)c).

(187) Presupposition projection with Strong Quantifiers

a) It would be fun if **all Swiss matadors** would enter the tournament.

b) Do you think **all Swiss matadors** will enter the tournament?

c) See to it that **all Swiss matadors** enter the tournament, will you?

(Examples from Geurts 2007:261)

Taking as true the generalization that weak quantifiers assert the existence of their domain, whereas strong quantifiers presuppose the existence of their domain, we can then account for the difference in distribution between weak and strong quantifiers in Blackfoot. Whereas weak quantifiers require the existential verb in order to assert the existence of their domain, the strong quantifiers *ohkan* 'all' and *wayak* 'both' don't require the existential verb to assert the existence of their domain because their the domain of quantification is presupposed.

4.2.2.4 *Possessor P in Blackfoot*

To this point I have addressed demonstratives, numerals, number marking and quantifiers in Blackfoot's nominal domain. The final category I address is possessor inflection. Unlike possessor morphology in English, possessor inflection in Blackfoot is not in complementary distribution with determiners/demonstratives. This is shown below in (188), where possessor inflection can occur with overt demonstratives:

(188)

a)	*kitáákohtsstsipssatuh*	***ana***	***kísis***
	kit-áák-oht-tssitsipssat-o	**an-wa**	**k-isis**
	2-FUT-source-talk.vta-1>2	**DEM-3**	**2-younger.brother**
	"I'm gonna tell you something about your brother."		

b) *Omiksi iiniiksi* *katai'kamotsatsiwaiksaa*
Om-iksi iinii-iksi kata'-ikamo'sat-yii-waiksaa
THAT-PL buffalo-PL Y/N-steal.vta-3>3'-nonaff:3PL

annisk ***otani***
an-yi-hka **o-itan-yi**
DEM -3'-invis **3-daughter-3'**

"Did the Buffalo steal his daughter?"

c) nimaatsipoihpa natokiksitsikoi ki
ni-maat-i'poyi-hpa natok-iksistsiko-yi ki
1-NEG-speak.vai-nonaff:loc two-beday.vii-NOM and

ana **niisis** nitoyi
an-wa **n-iihsiss** ni'to-yi
DEM-3 **1-sister** same-be.vai

"I didn't speak for two days, and neither did my sister"

Note that while nominals with possessor inflection can occur with overt demonstratives, overt demonstratives are not obligatory, as shown below. This differs from proper names, which require overt demonstratives (cf. Glougie 2000:9)

(189)

naaahsiksi *aisukowomayaa* *maakitapotsaa* *kaanótsisisin*
n-aaahs-iksi a-isookowoma-yaa om-aak-itap-oo-hs-yaa ohkano'tsisii-hsiN
1-Elder-PL IMPF-?-3PL 3-FUT-towards-go.vai-CJ-3PL mp.dance.vai-NOM
"My grandparents would get invited to attend a medicine pipe dance."

Notice that possessor inflection in Blackfoot's nominal domain is morphologically parallel to person marking on the clausal domain (cf. Déchaine 1999, on this phenomenon for Algonquian languages in

general). This morphological parallel is shown in the example below; *ni(t)-* indicates a first-person possessor when attached to a nominal, and indicates a first-person participant when attached to a verbal predicate. Likewise *ki(t)-* indicates a second-person possessor when attached to a nominal, and indicates a second-person participant when attached to a verbal predicate. Finally, *o(t)-* indicates a third-person possessor when attached to a nominal, and indicates a third-person participant when attached to a verbal predicate[97].

(190)

a)	***nit****omitaam*	a')	***nit****sinowa*
	nit-omitaam		**nit**-ino-a
	1-dog.poss		1-see.vta-DIR
	"My dog"		"I saw him"
b)	***kit****omitaam*	b')	***kit****sinowa*
	kit-omitaam		**kit**-ino-a
	2-dog.poss		**2**-see.vta-DIR
	"Your dog"		"You saw him"
c)	***ot****omitaam*		
	ot-omitaam		
	3-dog.poss		

c')	*ana Tsaan*	*ónohpapiyihpiksi*	***ot****ohkokkyaa*	*imitaa*
	an-wa Tsaan	o-nohpapiyihp-iksi	**ot**-ohkot-ok-yaa	imitaa
	DEM-3 John	3-sibling-PL	**3**-give.vta-INV-3PL	dog
	"John's siblings gave him a dog."			

[97] *o(t)-* is more restricted in its distribution than *ni(t)-* and *ki(t)-*. In most cases, in independent clauses, a third-person participant is indicated by the lack of *ni(t)-* or *ki(t)-*. In the independent mode *o(t)-* generally indicates that the third-person participant is obviative, as above, where "John's siblings" are obviative because "John" is proximate. In the conjunct mode, however, *o(t)-* regularly indicates both proximate and obviative third person participants. (cf. Frantz 1991:147, 149)

With this information in mind, it stands to reason that possessor inflection may be a morphological instantiation of Blackfoot's nominal anchoring node. Under this assumption, whether or not possessor inflection constitutes an assertion of existence is crucial for proposed analysis. I argue that the following example in (191) indicates that the existential force of possessor-inflected nominals is likewise presupposed, and not asserted. Note that the main predicate is marked with the non-affirmative ending *–waiksaa,* where the non-affirmative ending co-refers with the possessor-inflected nominal *onohpapiyihpiksi* "his siblings".

(191)

*nimaatohkotawa**waiksaa***	*(ana John)*	***onohpapiyihpiks***	*imitaa*
ni-maat-ohkot-a-wa-**waiksaa**	(an-wa John)	**o-ohpapiyihp-iksi**	imitaa
1-NEG-give.vta-DIR-?-**3PL:nonaff**	(DEM-3John)	**3-sibling-PL**	dog

"I did not give his (John's) siblings a dog."

As mentioned previously (see section 4.2.1), the non-affirmative endings always take existential wide-scope with respect to negation. This obligatory wide-scope property suggests that the non-affirmative in (191), along with its co-referential possessor-inflected nominal, bears an existential presupposition, as opposed to an existential assertion.

4.3 Summary of Chapter Four

In this chapter I suggested that Ritter & Wiltschko's (2005) proposal that Blackfoot anchors events to utterances via Person as opposed to Time or Location has semantic consequences for existential event closure. In particular I argued that existential event closure in English is entailed by temporal event-anchoring; by asserting that an event took place at a certain point in time or location, a speaker consequently asserts that event to exist in an objective, extensional sense. Anchoring via Person, however, differs significantly from anchoring via Time or Location, as it is inherently intensional or subjective. In asserting that a speech-act-participant participated in an event, one need not necessarily assert that event to exist in an objective, extensional sense.

Because Ritter & Wiltschko also argue that entities in general – i.e., both events and individuals - are anchored via the functional category Person in Blackfoot, I further proposed that the semantic consequences proposed for events should likewise hold for individuals. Thus I proposed that the where

existence is asserted for English individuals, Blackfoot individuals should instead encode a semantic property related to speech-act-participancy. I argued that Blackfoot NPIs provide evidence to this effect – where English NPIs have an existential property that is obligatorily forced within the scope of negation, Blackfoot NPIs have a property of speech-act-participancy that is forced within the scope of negation.

Following this, I argued that preliminary investigations suggest that Blackfoot's nominal domain lacks existential assertions in general, instead relying on either

i) presuppositions of existence, or
ii) light existential predicates from the verbal domain.

To be more specific, I argued that demonstratives, bare plurals, strong quantifiers and possessor-inflection in Blackfoot presuppose existence, whereas cardinal numbers and weak quantifiers in Blackfoot rely on light existential predicates from the verbal domain to assert existence.

The aim of chapter four has been to i) introduce the proposal that the content of a Blackfoot's anchoring node has semantic consequences for assertions of existence with respect to both events and individuals, and ii) provide evidence from the nominal domain that this proposal has merit, at least with respect to asserting the existence of individuals. In the next chapter I return to the clausal/event domain, investigating consequences for the proposal that existential event closure in Blackfoot differs significantly from existential event closure in English. I suggest that whether or not an event is asserted to exists corresponds to asserting a categorical truth-value, and provide preliminary evidence that truth-assertions in English and Blackfoot differ in a way corresponding to the predictions of my proposal.

5.0 CHAPTER FIVE: CONSEQUENCES FOR TRUTH-ASSERTIONS

In this chapter I return to the clausal/event domain, and look at the possible semantic consequences for the proposal put forth in the previous chapter – i.e., that assertions of event-existence in Blackfoot have a different status from assertions of event-existence in English, due to the fact that events are anchored via fundamentally different means; events being anchored via the (ostensibly) extensional category Tense in English, and events being anchored via the inherently intensional category Person/Participant in Blackfoot. I suggest that asserting the existence of an event is a equivalent to asserting the categorical truth-value of a proposition. With this intuition, I predict the consequences of the above proposal to surface in the expression of truth-values. Thus where an unmarked utterance in English is (purportedly) an instance of a categorical truth-assertion, I suggest that an unmarked utterance in Blackfoot is not an instance of a categorical truth-assertion.

I speculate that this is related to an observation for the related Algonquian language Cree - that the unmarked illocutionary speech-act appears to be merely the presentation of a proposition, as opposed to a presentation of a proposition as true – i.e., a categorical truth-assertion (cf. Blain & Déchaine 2007). In order to make my analysis compatible with Blain & Déchaine's observations, I slightly amend my stand on the syntactic difference between English and Blackfoot. In particular, I suggest that the content parameter setting on Infl is not a strict categorical difference (as presented in Ritter & Wiltschko 2005) but rather encodes a markedness distinction. Following this I suggest that there is also evidence for Blackfoot, such that the unmarked illocutionary speech-act does not have the status of a categorical truth-assertion.

5.1 Anchoring Events via Person and its Consequences for Truth-Assertions

5.1.1 Asserting the existence of an event and asserting the truth-value of a proposition

The leading questions for this chapter are as follows: What does it mean to assert that a proposition is true, and what does it mean to assert that an event exists? The first thing to acknowledge is that these two questions do not ask the same thing. Events and propositions are different types of entities, as several researchers have pointed out using various syntactic and semantic evidence (cf. Vendler 1967, 1968, 1975, Baeuerle 1987, Zucchi 1993). Thus while an event can be asserted to exist (or not exist), and they can be asserted to be *slow*, *sudden*, or *take a long time* (cf. Vendler 1967,

Zucchi 1993), we generally do not speak of events as bearing a value of either true or false. Likewise, while it has been argued that events are akin to physical objects, like individuals, which can be asserted to exist, we generally do not speak of propositions as physical objects which can be asserted to exist, nor do we say that propositions can be *slow*, *sudden* or *take a long time.*

Even with clear evidence that events and propositions are different types of entities, there is nonetheless an intuition that the act of asserting an event to exist , and the act of asserting a proposition to be true are somehow related[98]. This intuition can be theoretically formalized as follows. First I make the assumption, following Zucchi (1993), who adopts a Kratzerian-type situation semantics, that propositions are sets of possible situations, whereas events are minimal situations in these sets (Zucchi 1993:xiv).

(192) Definitions

a)	Propositions	=	sets of possible situations
b)	Events	=	minimal situations in a set of possible situations

(Adapted from Zucchi 1993:xiv)

With these definitions, we can then begin to consider what it means to assert that a proposition is true. Consider the sentence in (193):

(193) The soprano performs the song (Zucchi 1993:66)

According to Zucchi, the proposition expressed by (193) is as in (194):

[98] Part of this intuition is derived from the correlation between truth-values and morphological tense (which I have argued to indicate temporal event-anchoring, and thus the assertion of event-existence). Note, for example, the following quote from Kearns (2000): *"Semantic assertability, or the property of being a potential truth-value bearer, is coded syntactically as what we call finiteness, which is realized as tense in English"(Kearns 2000:154.)* Thus non-finite clauses like imperatives which lack morphological tense, correlatingly lack the ability to bear truth-values.

(194) *Asserting a proposition to be true*

Proposition expressed

= the set p of possible situations in which the soprano performs the song.

i) p is true in a situation s iff s belongs to p.

ii) p is true iff the actual world belongs to p.

(Adapted from Zucchi 1993:66)

The crucial aspect of the semantics outlined in (194), for my purposes, is the second clause - that "p is true iff the actual world belongs to p." I contend that by asserting that an event denoted by the predicate exists in the real, extensional world, one asserts that the actual world is a situation which belongs to p. Given the above, this means that by asserting an event to exist in the actual world, one asserts its corresponding proposition to be true. Asserting an event to exist, then, while not being exactly the same, is equivalent to asserting a proposition to be true.

The consequences for the status of truth-assertions in English and Blackfoot can then be worked out as follows. Because English anchors events to utterances via the utterance time, events are anchored to, and thus asserted to exist in, the actual world. This entails that the actual world is a situation which belongs to the set of situations p, which make up the proposition expressed by the speaker, thereby entailing the proposition to be categorically true. Grammatical event-anchoring for an unmarked utterance[99] in English is thus the first step in a chain which results in a categorical truth-assertion.

Blackfoot, on the other hand, anchors events to utterances via the speech-act-participants. I proposed in the previous chapter that because Person/Participancy is inherently subjective/intensional, the grammatical requirement that an event be anchored in Blackfoot does not require an assertion about the existence of the event in the actual world, but rather an assertion about the existence of the event relative to the speech-act participants. The consequence for this is that grammatical event-anchoring in Blackfoot does not entail that the actual world is a situation which belongs to p – i.e., that p is categorically true. The status of an utterance in Blackfoot therefore need not be a categorical truth-assertion, but an assertion of truth rather more like the first clause of (194) – that "p is true in a

[99] I make the qualification "unmarked" because English clearly has means to avoid making categorical truth-assertions, eg. modals, evidential tags, etc. This will be addressed in section 5.2.

situation s iff s belongs to p," where the qualification "in a situation," reflects the sense of relativity or subjectiveness associated with the perspective of the speech-act-participants.

The question now is whether there is any evidence to this effect – that unmarked utterances in English and Blackfoot make different kinds of truth-assertions. Here I suggest that Blain & Déchaine's (2007) observations for the related Algonquian language Plains Cree can provide a hint as to the kind of evidence to look for.

5.1.2 Blain & Déchaine (2007) – The Presentative Function of Evidentials

Blain & Déchaine (2007) are primarily interested in evidentiality, where evidentiality is defined as means of encoding a speaker's information source for the proposition expressed. They present two main ideas. The first idea, which I address only briefly, is that evidentials are not associated with a specific syntactic locus, either within or across languages (contra Cinque 1999, Speas 2004). They argue that evidentials instead can be associated with several different syntactic domains (CP, IP, AspP, or VP), where the evidentials associated with different syntactic domains will have correspondingly different morphological and semantic properties. This is their Evidential Domain Hypothesis (Blain & Déchaine 2006, 2007). The second idea that Blain & Déchaine introduce is the notion that the pragmatic function of evidentials is to *present* a proposition, where the act of presenting a proposition is substantially different from the act of asserting a proposition. This is the aspect of their proposal that is relevant for the issues discussed here.

The notion that evidentials have a presentative function is not new – Blain & Déchaine note that both McDowell (1991) and Faller (2002) acknowledge a correlation between evidentials and a presentative illocutionary mode. Blain & Déchaine differ, however, in that where McDowell and Faller treat this presentative illocutionary mode as a sub-type of assertion, Blain & Déchaine argue for a categorical distinction between the two different illocutionary modes. They thus propose that among the inventory of illocutionary modes there is an assertive illocutionary mode, and a distinct, separate, presentative illocutionary mode. The point of interest for the subject-matter at hand, is how the distinction between these two types of speech-acts is drawn - Blain & Déchaine characterize the difference between these two types of illocutionary modes as follows: while the assertive introduces a truth-claim, the presentative does not. This is schematized below in (195).

(195) Blain & Déchaine (2007: A distinction in illocutionary acts)

Assertion:	Present (p) as true	"Assertive speech-act"
Presentation:	Present (p)	"Presentative speech-act"

Blain & Déchaine base this distinction on the generalization that while using the assertative illocutionary mode commits the speaker to the truth of a proposition, using the presentative illocutionary mode only commits the speaker to having a source of information. This can be illustrated with the following examples. The utterance in (196) by Speaker A is unmarked for evidentiality, and thus an instance of an assertive speech act. The fact that Speaker A commits to the truth of their proposition can be seen by the fact that Speaker B is able to felicitously challenge the truth-claim made by Speaker A.

(196) **Speaker A:** Vanessa loved eating the omelettes at brunch.

Speaker B: You're a liar. I know for a fact that she's vegan
(so she wouldn't have eaten the omelettes).

(Based on examples from Blain & Déchaine 2007)

Consider now the utterance in (197). The utterance made by Speaker A is overtly marked with an evidential parenthetical, and thus an instance of a presentative speech act. The fact that Speaker A does not introduce a truth-claim can be seen by the fact that Speaker B cannot felicitously challenge the truth-claim made by Speaker A, as shown by the infelicity of 197)a).

(197) **Speaker A:** Ewan said [Vanessa loved eating the omelettes at brunch].

a) **Speaker B:** #You're a liar. I know for a fact that she's vegan.
b) **Speaker B:** Well, *Michelle* $_{\text{FOC}}$ said Vanessa hated the omelettes.
c) **Speaker B:** You're wrong… Ewan wasn't even at brunch.

(Based on examples from Blain & Déchaine 2007)

What can be challenged, however, is the source or reliability of the source of information, as shown by the felicity of 197)b) and c)[100].

An observation that Blain & Déchaine make is that while in English the assertative is morphologically unmarked, and the presentative overtly marked, in Plains Cree, the opposite is true. Thus while there are overt evidentials in Plains Cree, a bare CP unmarked for evidentiality nonetheless has evidential force, indicating first-person experience (cf. Cook & Muehlbauer 2007, Cook, in prep.)

(198) Markedness and the Assertive Versus Presentative Function

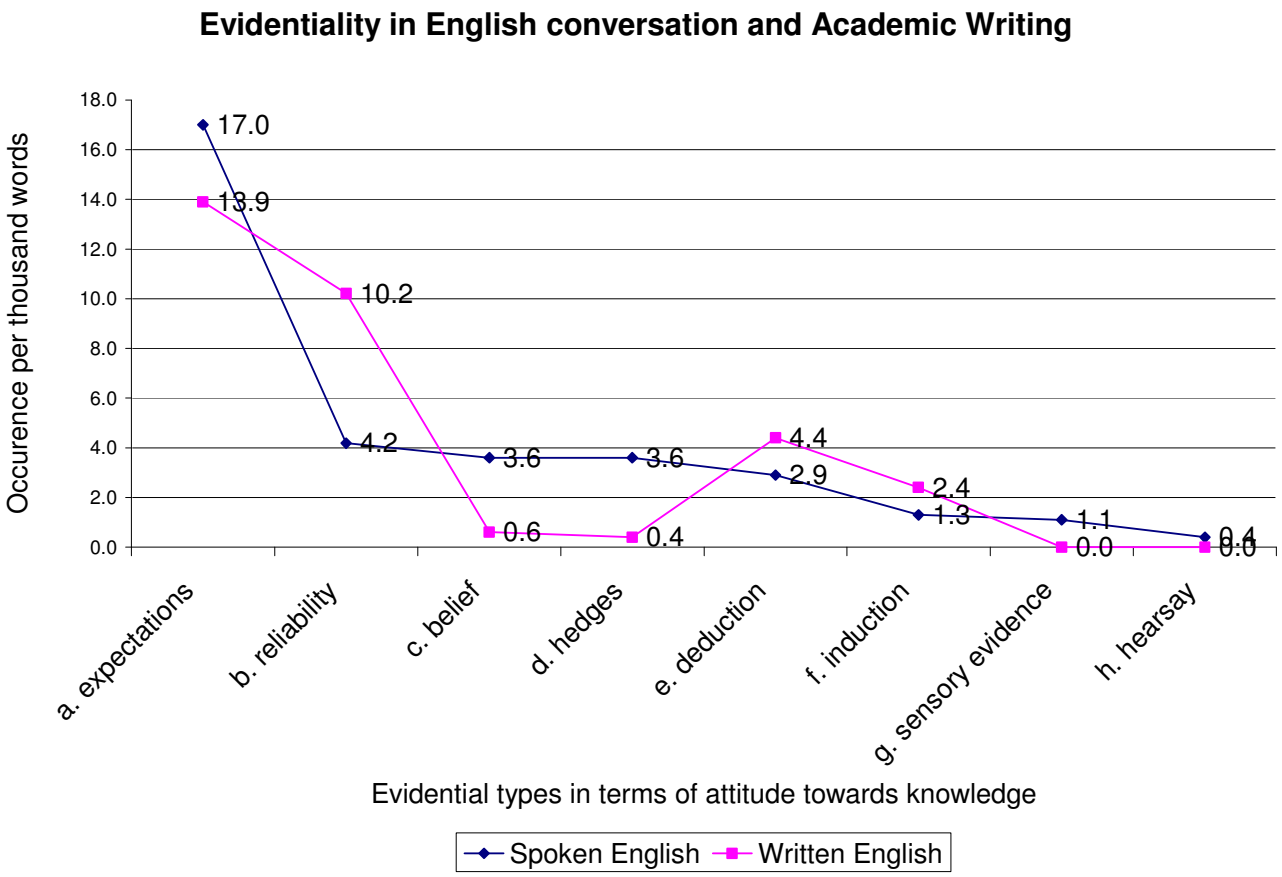
	Assertive	Presentative	
a. unmarked clauses have ASSERTATIVE force	∅	marked	English
b. unmarked clauses have PRESENTATIVE force	marked	∅	P.Cree

This phenomenon is not restricted to Plains Cree; other languages which employ frequent use of evidentials often display a property like this. Faller (2002) notes that unmarked utterances in Cuzco Quechua, for instance, are nonetheless interpreted as if overtly marked with a direct evidential. The overt morphological presence of the direct evidential results in an utterance understood as having stronger illocutionary strength than a normal assertion, or being emphatic (Faller 2002:164).

Blain & Déchaine also provide evidence that Plains Cree and English differ according to the distributional markedness of evidential utterances. Citing data from Chafe (1986), Blain & Déchaine point out that spoken and written English makes little use of evidentiality. In discourse there are relatively few occurrences of utterances that indicate one's source of information – eg., the occurrence indicating induction, sensory evidence or hearsay are relatively low. This is shown in the diagram in (199).

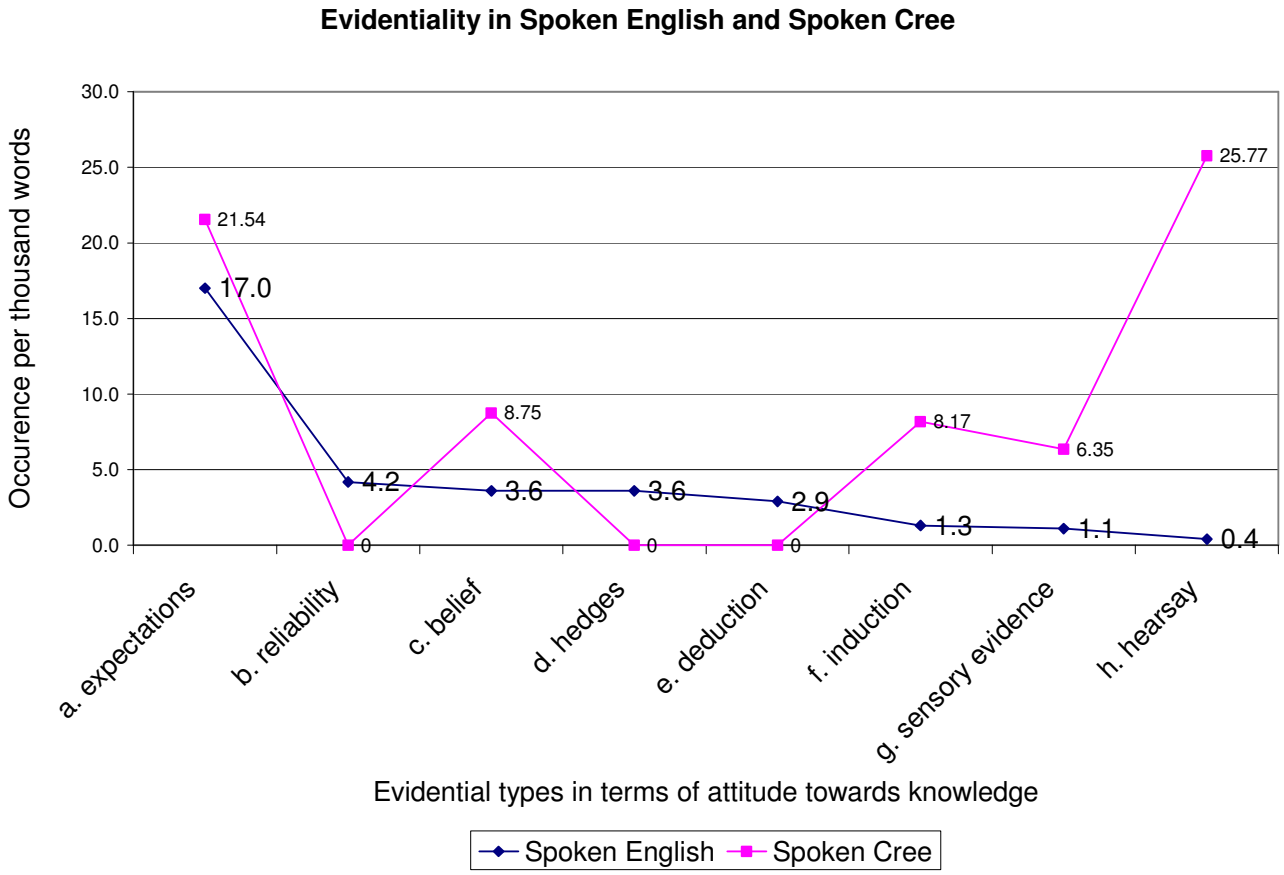
[100] A question raised by Duk-Ho An is whether or not the distinction shown between (196) and (197) is reproducible in Blackfoot. Unfortunately, while the parenthetical verbs in have been argued to function like evidentials in English by researchers like Simons (2007), to my knowledge there has been little or no research on whether i) there exist evidentials in Blackfoot, and ii) if so, how they behave. I therefore leave this question as a matter for further research.

(199) (Blain & Déchaine 2007:6; adapted from Chafe 1986)



Reproducing Chafe's study with respect to Plains Cree, Blain & Déchaine show that (at least for spoken Plains Cree), the discourse frequency of evidentially-marked utterances is markedly different. Occurrences of utterances indicating induction, sensory evidence and hearsay are notably more frequent in Plains Cree than in English. This disparity between spoken English and spoken Plains Cree is shown in diagram (200).

(200) (Blain & Déchaine 2007:7)



To summarize to this point, Blain & Déchaine (2007) propose that utterances with and without evidential force are fundamentally different with respect to their illocutionary type; where non-evidential utterances are instances of an assertive speech-act, which is associated with truth-claim, evidential utterances are instances of a presentative speech-act, which is not associated with a truth-claim. They further propose that English and Plains Cree differ as to which illocutionary force is the unmarked and default – while English has the assertative as its default speech-act, Plains Cree has the presentative as its default speech act. Evidence for this distinction comes from the diverging patterns of morphological and distributional markedness, with respect to these two types of speech-acts, for each language respectively.

At this point a clarification is required regarding what Blain & Déchaine mean by their proposal that the unmarked Plains Cree utterance is a presentative speech-act, and therefore not associated with a truth-claim. A question that arises is as follows: If a speaker is not making a statement about how the

actual world is, what are they doing? Consider the following excerpt regarding their view on evidentialized statements: "Evidentiality is inherently perspectival: the speaker necessarily presents his/her perspective on the information source" (Blain & Déchaine 2007:9). From this we can see that Blain & Déchaine are not claiming that unmarked Plains Cree utterances are completely void of informative content regarding the actual world[101]. Rather, they conceptualize the presentative speech-act as an illocutionary mode that does not commit the speaker to an *objective* truth-claim, but still represents a claim, albeit a claim inherently relativized to the speaker's perspective. Blain & Déchaine formalize this in terms of Kölbel's Relativized Truth Framework, laid out as in (201) and (202) –they suggest that evidentialized statements are special cases of what of Kölbel terms "perspective possession."

(201) Relativized Truth Framework

a) Truth is relativized to perspective.

perspective is a function from contents to truth-values:
A content is true according to a given perspective, if that perspective assigns the value 'true' to that context.

b) Perspective possession is the relation that connects a thinker to the world that she or he inhabits.

c) A thinker commits a *mistake* if s/he believes a content that is not true according to the perspective he or she possesses (at that time)

(Kölbel 2002:100, cited by Blain & Déchaine 2007:9)

[101] Which would be a rather strange state of things.

(202) Constraints on perspective possession

C1 Constraint on evaluation of non-objective contents

For all p: p is **non-objective** iff it is **possible** that there be thinkers A and B, such that ***p*** **is true in A's perspective and** ***p*** **is not true in B's perspective.**

C2 Constraint on evaluation of objective contents

For all p: p is **objective** iff it is **not possible** that there be thinkers A and B, such that ***p*** **is true in A's perspective and** ***p*** **is not true in B's perspective.**

C3 Constraint on Truth-Norm

For all thinkers t and all perspectives s:
a thinker t possesses a perspective s iff for all contents p:
the thinker t ought to believe p only if p is true in the perspective s.

(from Kölbel 2002:102f, cited in Blain & Déchaine 2007:9)

To summarize, the aspects of Blain & Déchaine's proposal that are relevant for the issues addressed here is that while in English, unmarked utterances are instances of assertive speech-acts – commitments to a categorical truth-claim; in Plains Cree unmarked utterances are instances of presentative speech-acts. Unmarked utterances in Plains Cree are thus not commitments to a categorical/objective truth-claim, but rather commitments to a representation of perspectivized information.

Recall that the main aim of this chapter is to provide some preliminary evidence for the claim that while event-anchoring in English entails an utterance in English to be an instance of a categorical truth-assertion, event-anchoring in Blackfoot does not entail an utterance in Blackfoot to be a categorical truth-assertion. I suggested that because Blackfoot anchors events via an inherently subjective category – Person/Participant – event-anchoring does not entail a categorical, objective truth-assertion, instead entailing an assertion of truth relativized with respect to the perspective of the speech-act-participants. Taking into account the observations made by Blain & Déchaine, a reasonable course of action to pursue, then, would be to search for phenomena in Blackfoot that parallel the phenomena observed for Plains Cree. At the fore, however, there is an minor difficulty to this task.

Note that Blain & Déchaine crucially makes use of the notion of *markedness* - while they argue that unmarked utterances in Plains Cree are not associated with a commitment to an objective truth-claim, they do not claim that objective truth-claims are impossible. The syntactic framework as laid out by Ritter & Wiltschko (2005), however, is formulated in terms of a discrete parametric choice. Because the proposals for the syntax-semantics interface proposed here are based on their syntactic framework, the proposed consequences for the syntax-semantic interface should likewise be formulated in terms of a discrete parametric choice, as opposed to a graded notion of markedness. In the following section I address how this discrepancy can be resolved, recasting Ritter & Wiltschko's syntactic framework in terms of a graded notion of markedness, as opposed to a discrete parametric choice. After this brief detour, I return to the task of detecting phenomena in Blackfoot that parallel the relevant phenomena for Plains Cree.

5.2 Anchoring by TP, δP or LocP: Discrete choice, or markedness?

The main theme of this thesis is that Ritter & Wiltschko's (2005) syntactic proposal – the Parametric Infl Substantiation Hypothesis as in (203)- has consequences for syntax-semantics interface.

(203) The Parametric Infl Substantiation Hypothesis:

Discrete Parametric choice in Anchoring Nodes:

Clausal Anchoring node IP:

a. Tense (TP)
b. Location (LocP)
c. Speech-Act-Participant (PartP)

English	→	a. Tense (IP=TP)
Halkomelem	→	b. Location (IP=LocP)
Blackfoot	→	c. Speech-Act-Participant (IP=PartP)

Focusing on Blackfoot, in the last two chapters I proposed that one consequence of their proposal is that because entities are anchored via an inherently subjective category in Blackfoot – i.e. Person/Participancy – as opposed to via an ostensibly objective category like Tense in English - where

English encodes existential assertions, Blackfoot instead encodes subjectivized notions associated with speech-act participancy. I suggested this is the case for both kinds of entities – both individuals and events, and that the consequences for events can be seen more clearly when looking at the notion of truth-assertion. My proposed consequences for the syntax-semantics interface are summarized below in (204):

(204) Proposed Consequences for the Syntax-Semantics Interface

a) FOR INDIVIDUALS:

Where English encodes assertions of existence, Blackfoot will encode subjectivized notions associated with the speech-act participants.

b) FOR EVENTS:

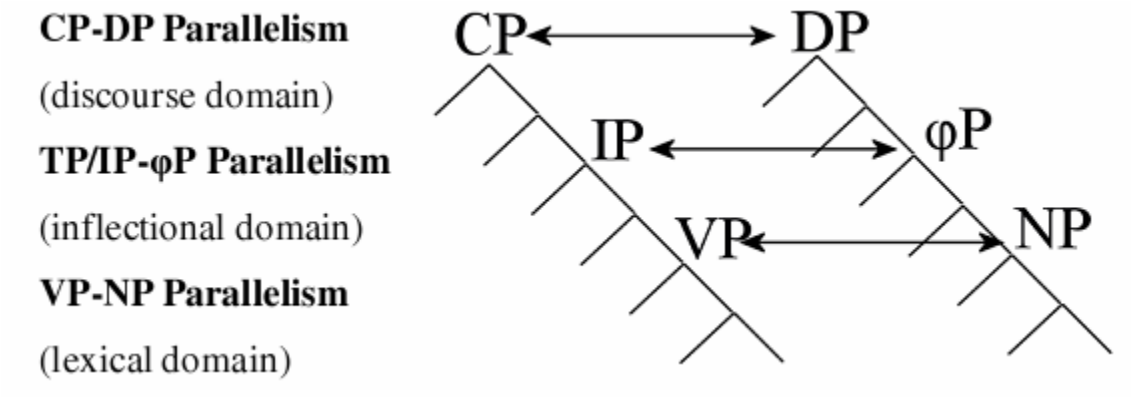
Where English encodes objective truth-assertions, Blackfoot will encode subjectivized notions associated with the speech-act participants.

The issue addressed in this section is the strength of the predictions made when taking into account the proposed consequences in (204), and the fact that Ritter & Wiltschko 2005 present the difference in anchoring nodes between languages like English, Blackfoot and Halkomelem as a discrete parametric choice. A language either has Tense as the substance for Infl, or a language has Person as its substance for Infl, or a language has Location as it substance for Infl. The proposal does not provisions such that a language may anchor via Tense in one context, but may choose to anchor via Person in another context.

The problem that arises when taking the discrete aspect of their proposal in hand with the proposed consequences in (204), is that the predictions made are too strong. If the choice of Infl is discrete and parametric, then the semantic properties encoded on the Infl should also be discrete and parametric. This means that whenever an utterance in English makes use of its Infl node, we predict that it either asserts the objective truth of the proposition, or its negation. This likewise means that whenever an utterance in Blackfoot makes use of its Infl node, we predict that it either asserts the non-

objective truth of the proposition, or its negation[102]. This is already problematic when just considering English, which clearly has instances of IPs where a speaker makes a commitment to something less than a categorical, objective truth-claim. Any sentence with modals in English, for example, is a clear example of this. These too-strong predictions carry over to individuals and the nominal domain as well, with the standard assumption that the clausal and nominal domain are parallel in structure and what they encode (cf. Szabolcsi 1994, Bennis, Corver & Dikken 1998, Elouazizi & Wiltschko 2006).

(205) Parallelism between the Nominal and Clausal Domain[103]



If the content of the nominal equivalent of an anchoring node (which I designate here as be φP) is proposed to be discrete and parametric, then the semantic properties encoded on the φP should likewise be discrete and parametric. This means that whenever an English nominal contains a φP, we predict that the use of this nominal either asserts the objective existence of the individual, or its non-existence, via temporal notions. Likewise, whenever a Blackfoot nominal contains a φP, we predict that the use of this nominal asserts some relation between the nominal and the speech-act participants. Again, this is at least problematic for English. Consider for example, English indefinites, which are infamous for their problematic behaviour with respect to their existential properties and scope. The interesting thing to note here is that the problematic wide-scope property of specific indefinites is often attributed to

[102] I abstract away from Halkomelem as I have not yet considered how or whether Ritter & Wiltschko's proposal may affect its syntax-semantics interface – while I can conceptualize Person/Participancy being quite different from Tense on account of the objective/non-objective distinction, I have not thought out how/whether Tense and Location (temporal aspects and spatial aspects) might diverge in an interesting way.

[103] Note that this diagram is just a schematic, as I have adopted a split VP framework in Chapter Three, assuming the existence of an AspP. Continuing along with the idea that the nominal and clausal domain are parallel in structure (as well as what they encode), this predicts that there would exist a parallel lower functional phrase in the nominal domain. I suggest that this functional phrase in English is equivalent to Borer's (2005a) ClassifierP, a functional phrase which encodes the mass/count distinction. As for Blackfoot, I conjecture that its parallel lower functional phrase is where the animate/inanimate distinction may be encoded. I leave further inquiries into this direction for further research.

notions related to the speech-act-participants. Kratzer 2002, for instance, attributes the appearance of wide and intermediate-scope readings as falling out from the fact that indefinites can be interpreted as choice-functions, where choice-functions pick out an individual from a restrictor set. Different restrictor sets result in the different scope readings, and where the indefinite appears to have widest-scope, the restrictor set is often bound by the *speaker*. This would be a surprising state of things if we were to assume that nominals in English could only be anchored via temporal means, and could not be anchored via the speech-act-participants.

(206) The Overly-strong Predictions made with a Discrete Framework

a) For the Clausal Domain and Events:

Blackfoot IP = PartP :

Can only assert notions of Participancy, and cannot assert notions related to Time or Loc-

English IP = TP:

Can only assert truth wrt. to Time, and cannot assert Participant- or Location-related notions.

b) For the Nominal Domain and Individuals:

Blackfoot φP:

Can only assert notions of speech-act-participancy, and cannot assert notions related to Time or Location

English φP:

Can only assert existence via notions of time and cannot assert notions of speech-act-participancy or Location

The take-home message here is that with the semantic consequences as proposed, situated within the originally discrete syntactic framework adopted, make predictions that are too strong. Fortunately, Blain & Dechaine's approach to Plains Cree point towards a way to avoid these overly-strong

predictions. Recall that Blain & Déchaine propose their ideas within a *markedness* framework. If the content of a language's anchoring node need not be determined as a discrete choice, but rather through language-specific *markedness* settings[104], the overly-strong predictions can be softened. Under this recasting of Ritter & Wiltschko's Parametric Infl Substantiation Hypothesis, a clausal anchoring node can access all three options for anchoring, Tense (TP), Location (LocP), or Participancy (PartP). Where languages differ is according to which option is more marked (i.e., which is the default setting) Thus in English, IP can access either Tense, Loc or Participancy, but Tense is the unmarked choice. In Blackfoot, IP can access either Tense, Loc or Participancy, but Participancy is the unmarked choice. In Halkomelem, IP can access either Tense, Loc or Participancy, but Location is the unmarked choice. This revision of the Parametric Infl Substantiation Hypothesis is schematized as in (207) below:

(207) Revised Parametric Infl Substantiation Hypothesis

Clausal Anchoring node IP:

a. Tense (TP)
b. Location (LocP)
c. Speech-Act-Participant (PartP)

English	**a. Tense**	→ **UNMARKED (IP=TP)**
	b. Location	
	c. Speech-Act-Participant	
Halkomelem	a. Tense	
	b. Location	→ **UNMARKED (IP=LocP)**
	c. Speech-Act-Participant	
Blackfoot	a. Tense	
	b. Location	
	c. S.A.Participant	→ **UNMARKED (IP=PartP)**

[104] Thanks to Rose-Marie Déchaine for pointing out this option to me

With the syntactic properties of anchoring nodes being parameterized according to a notion of markedness, the corresponding consequences for the syntax-semantics interface can likewise be parameterized according to a notion markedness. With this provision in place, we can now return to the original task of finding evidence in Blackfoot that parallels that of the observations made for Plains Cree - i.e., finding evidence that the unmarked utterance in Blackfoot is not an instance of an objective, categorical truth-assertion.

5.3 Categorical Truth-Assertions in Blackfoot are Marked Utterances

The goal of this section is to provide evidence for the proposal that, like Plains Cree, unmarked utterances in Blackfoot are *not* instances of objective, categorical truth-assertions. If you recall, most of the evidence/motivation for Blain & Déchaine's proposal for Plains Cree focused on evidentiality. They argued that

i) unmarked utterances in Plains Cree are nonetheless interpreted with evidential (speaker experience) force, and

ii) the frequency of utterances with evidential force in Plains Cree are inverse to that of English, with Plains Cree discourse making use of more utterances with evidential force.

The problem with attempting to reproduce these arguments for Blackfoot is that unlike most other Algonquian languages[105], Blackfoot does not have a highly articulated evidential system. I argue, however, that Blackfoot still behaves like Plains Cree in that its unmarked utterances are not categorical truth-assertions. The evidence I provide here is in the form of its obvious corollary claim – i.e., that instances of objective truth-claims in Blackfoot are *marked* utterances – either morphologically and/or with respect to distribution. I suggest the evidence presents itself in the form of one of Blackfoot's epistemic modals.

[105] And Cuzco Quechua, which display similar behaviour to Plains Cree to this respect

5.3.1 An Epistemic Modal in Blackfoot: Blackfoot *na-*

Bliss & Ritter (2007) argue that preverbal morpheme *na-* is an epistemic modal. Their argument is based on the semantic grounds that *na-* marked clauses are associated with speaker certainty that the event in question occurred. This is indicated by the data in (208), which shows a minimal pair distinguished only by the presence of absence of *na-*. Regarding the difference in meaning between the minimal pair, Bliss & Ritter note that their language consultant remarked as in (209), such that the *na-* marked clause can only be used when the speaker is certain that the event occurred.

(208)

Ostóyi	*(**na**)isapiipommaa*	*pisátssaisski*	*matónni*
ostoyi	**na**-i-sapiipomma-(w)a	pisatssaisski	matonni
3sg.PRO	NA-CONN-plant.vai-3	flower	yesterday

"S/he (NA) planted flowers yesterday."

(Bliss & Ritter 2007a:4)

(209)

Re: Using *na-*

Speaker Comment: "You cannot say this if you don't know, you have to know it for sure."

(Bliss & Ritter 2007a:2)

With the goal of this section in mind, I argue that this constitutes possible evidence that morphologically unmarked utterances in Blackfoot are not instances of categorical truth-assertions. In particular, I propose that the above observations are compatible with the hypothesis that *na-* marked clauses are instances of categorical truth-assertions, while unmarked clauses (clauses lacking *na-*) are not.

One interesting thing to note is that *na-* as an epistemic modal displays an inverse behaviour to English modals, with respect to its semantics, as its occurrence lends an increased strength of assertion, whereas in English, epistemic modals tend to weaken the strength of the assertion (cf. Kratzer 1991). This can be illustrated by the data below, where the modal-marked utterances in (210) are weaker than their unmarked counterparts in (211):

(210)

a) The Maori ***must*** have come from Tahiti.

b) It ***must*** be raining in Chicago.

c) Bluebeard ***must*** beat his wife.

d) Clark Kent ***might*** be Superman

e) The President ***might*** have known what North was up to.

(Adapted from McDowell 1991:311)

(211)

a) The Maori came from Tahiti.

b) It is raining in Chicago.

c) Bluebeard beats his wife.

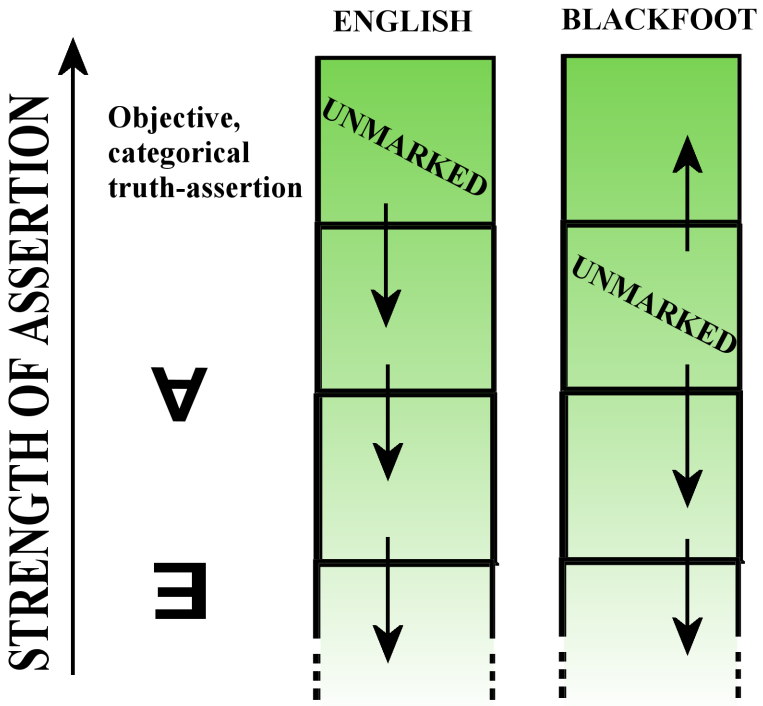
d) Clark Kent is Superman

e) The President knew what North was up to.

(McDowell 1991:312)

This inverse behaviour is expected under the parametric illocutionary markedness hypothesis, as adapted from Blain& Déchaine. If an unmarked clause in English is an objective, categorical truth-assertion, presumably an assertion of the highest strength, we expect marked clauses to have a weaker force as there is nowhere else to go. If in Blackfoot, on the other hand, an unmarked clause is not an objective, categorical truth-assertion, then a marked clause has the option to provide that level of assertive strength. This is schematized below as in (212).

(212)



Recall that under the revised Parametric Infl Substantiation Hypothesis adopted here, these epistemic modally-marked utterances should constitute instances of marked anchoring options – e.g., a *na-* marked clause in Blackfoot should be an instance of event-anchoring via temporal (or possibly location) means, and the *might/must*-marked clauses in English should be an instance of event-anchoring via Person/Participancy. There are two predictions that fall out from these assumptions, one syntactic and one semantic.

5.3.2 Two Predictions

The syntactic prediction is that if these epistemic modally marked clauses are instances of the respective languages accessing marked anchoring options, then the epistemic modals should be in complementary distribution with morphemes that instantiate the unmarked method of anchoring in each language respectively. Thus the epistemic modals *might* and *must* in English should be in complementary distribution with morphological tense, and the epistemic modal *na-* in Blackfoot should be in complementary distribution with the person-prefixes *nit-* and *kit-*. Both English and Blackfoot show this prediction to have merit – as is well-known, modals and morphological tense in English are in complementary distribution. This can be seen by the data below in (213)

(213) *Must* and *might* cannot occur with Temporal Anchoring morphological tense

a) The Maori **came** from Tahiti
b) *The Maori **must came** from Tahiti

c) It **was** raining in Chicago
d) *It **must was** raining in Chicago

e) He walk**ed** to the store.
f) *He **must** walk**ed** to the store.

As for Blackfoot, it is also the case that *na-* is in complementary distribution with the person prefixes. This is shown by the data below in (214)

(214) *Na-* cannot occur with Person-Anchoring Prefixes *nit-, kit-*

a)	*Nitókska'si*	b)	*Kitókska'si*	c)	*(**ná**)okska'siwa*
	nit-okska'si		kit-okska'si		(**na**)-okska'si-wa
	1-run.vai		2-run.vai		NA-run.vai-3
	'I ran.'		'You ran.'		'S/he ran.'
d)	**Nanitókska'si*	e)	**Nakitóska'si*		
	na-nit-okska'si		**na**-kit-okska'si		
	NA-1-run.vai		**NA**-2-run.vai		
	'I ran'		'You ran.'		

(Bliss & Ritter 2007a:4)

As a note, *na-* can occur with the inclusive plural suffix marker, as shown below in (215). This indicates, as noted by Bliss and Ritter, that the incompatibility between *na-* and *nit/kit* is not a semantic – i.e., it is not the case that *na-* is encoded with third-person semantics.

(215)

. ***(ná)ókska'so'p***

(**na**)-okska'si-**o'p**

NA-run.vai-**21**

'We ran.' (Data from Bliss & Ritter 2007)

The semantic prediction made, assuming that the epistemic modal marked clauses are instances of the languages accessing marked anchoring options, is that these clauses should show some semantics associated with the semantic properties of the relevant marked anchoring option. More concretely, the English *must/might-* marked clauses should carry some semantics related to speech-act-participancy[106], and the Blackfoot *na-* marked clauses should carry some temporal semantics. This prediction is likewise supported in both languages. First, epistemic modals in English are generally analyzed as quantifiers over possible worlds, where these possible worlds are defined in terms of knowledge – i.e., in view of what is known. This body of knowledge represents what is known by the speech-act-participants – either the speaker and/or hearer[107]. Second, *na*-marked clauses in Blackfoot are associated with temporal semantics[108]. In fact, Frantz (1991) analyzes *na-* as a past-tense marker, and Bliss & Ritter likewise show that *na*-marked clauses (unlike unmarked clauses) are incompatible with a non-past context[109]. This is shown by (216) below. So while unmarked Blackfoot clauses are compatible with either a past or present interpretation (abstracting away from the perfective/imperfective distinction), *na*-marked clauses cannot be interpreted as present.

(216)

Náísiksipiiwayi aní John

na-i-siksip-(y)ii-wa-ayi an-(y)i John

NA-CONN-bite.vta-DIR-3SG-DTP DEM-3' John

✓'It (the dog) bit John.'

× 'It (the dog) is biting John.' (Ritter 2007:19)

[106] or have spatial semantics, if accessing Location as a marked anchoring option.

[107] As pointed out to me by Duk-Ho An, the majority of utterances, modally-marked or not, of course, do represent the knowledge of the speech-act-participants. The relevant difference, however, is that non-modally-marked utterances do not *linguistically encode* the limited knowledge base of the speech-act-participants, whereas modally-marked utterances do.

[108] Recall from Chapter Two and Three that unmarked clauses in Blackfoot (i.e., non *na-* marked clauses), by contrast, are interpretable as either past, or non-past, when controlling for perfectivity.

[109] Bliss & Ritter argue, however, that the past-tense interpretation of *na-* is an indirect consequence of its semantics as an epistemic modal. They argue that because *na-* encodes speaker certainty, *na-* results in a past-tense interpretation on the assumption that a speaker can only be certain of an event's occurrence after the fact (Bliss & Ritter 2007:10)

To summarize to this point, I have argued that clauses marked by the epistemic modal *na-* in Blackfoot can be analyzed as instances of objective, categorical truth-assertions, the corollary of which implies that unmarked clauses in Blackfoot are not instances of objective, categorical truth-assertions. Situating this within the framework of this thesis, I suggest that *na-* marked clauses are instances of Blackfoot accessing a marked anchoring option – specifically, temporal anchoring. I further proposed that under this proposal, several empirical observations can be derived, such as i) the fact that *na-* is in complementary distribution with the unmarked anchoring morphemes in Blackfoot– i.e., the person prefixes, and ii) the fact that *na-* is associated with temporal semantics. I also proposed that clauses marked by the epistemic modals *might* and *must* in English are analyzeable in a parallel manner to Blackfoot's *na-*. I thus argue that these clauses are instances of English accessing a marked anchoring option – specifically anchoring via speech-act-participants. Evidence for this proposal is that the epistemic modals *might* and *must* show a parallel (albeit inverse) pattern to Blackfoot's *na-*, in that i) *might/must* are in complementary distribution with the unmarked anchoring morphemes in English – i.e., morphological tense, and ii) *might/must* are associated with a notion anchored to the (knowledge of the) speech-act-participants.

So as not to misrepresent Bliss & Ritter (2007), it is important to acknowledge that my analysis diverges from theirs in several not insignificant ways. For instance, whereas I analyze *na-* as merging in Infl, Bliss & Ritter argue that *na-* is an abstract modal NA- that merges in Comp. Assuming Infl-Comp raising, they suggest that when the person prefixes *nit-/kit-* raise to Comp, NA- is not phonetically realized, but that when the syntactic structure lacks *nit-/kit-* to raise to Comp, NA- is spelled out as *na-*. As I understand it, their motivation for situating *na-* in Comp as opposed to Infl is grounded in a principle associated with Distributed Morphology, such that vocabulary items compete for insertion at a syntactic position, which is associated with specific syntactic features. Vocabulary items that match more of these syntactic features, and make a greater semantic contribution, "win" the competition, and are therefore inserted. With this assumption, Bliss & Ritter's argument for situating *na-* in Comp as opposed to in Infl is as in (217):

(217)

"*If* na- *and person prefixes were both INFL elements, then we would expect* na- *to be inserted instead of a person prefix because it makes a more specific semantic contribution, and its contribution is not recoverable from DPs or agreement suffixes.."*

(Bliss & Ritter 2007:11)

Under their assumptions, if *na-* and *nit-, kit-* were both generated in Infl, *nit-*, and *kit-* would never be inserted, as they would always be blocked by the more semantically content-ful *na-*[110]. According to the markedness framework adopted in this thesis, however, the fact that both *na-* and *nit-, kit-* can both occur in the Blackfoot can be accounted for under the assumption that the syntactic features of the Infl node that *na-* inserts into are different from the syntactic features of the Infl node that *nit-* and *kit-* insert into; one is an Infl with temporal content (and therefore holds temporal features), and one is an Infl with person/participancy content (and therefore holds Person/participancy features). Under this analysis, *na-* and *nit-, kit-* do not differ in absolute terms such that one is more semantically content-ful than the other– the fact that *nit-* and *kit-* are not always blocked by *na-* can be due to the fact that *na-* wins the vocabulary insertion competition when Infl is encoded with temporal features, and that *nit-/kit-* win the vocabulary insertion competition when Infl is encoded with Person features. Note that in English, morphological tense and the epistemic modals *might/must* do not stand in an absolute blocking relationship in English either[111], despite the fact that standard analyses hold them to both be morphological instantiations of the same syntactic node, and despite the fact that the semantic content of morphological tense could ostensibly be recoverable from overt time adverbials like "yesterday," or "right now.[112]"

5.4 Summary of Chapter Five

The main goal of this chapter was to build on the proposal from the previous chapter – i.e., the proposal that event-anchoring via the speech-act-participants in Blackfoot, as opposed to via the

[110] I take this to mean that with their assumptions, having *nit-* and *kit-* compete for the same syntactic position as *na-* would predict *nit-/kit-* to never be attested in Blackfoot, which is clearly not the case.
[111] i.e., it is not the case that morphological tense is always inserted over modals, or that modals are always inserted over morphological tense – both are attested in English.
[112] Overt time adverbials are optional in English, of course, but overt DPs in Blackfoot are also optional, so I assume the semantic recoverability associated with these elements are equivalent.

ostensibly objective category Tense as in English, entails that assertions of event-existence differ between the two languages. Thus where event-anchoring in English entails asserting the existence of an event in the objective, real-world, event-anchoring in Blackfoot does not. The new development in this chapter concerns where the proposed difference in existential event-assertions shows semantic effect. I suggest that the affected party are truth-assertions; specifically I argue that asserting existence of an objective, real-world event is equivalent to asserting the objective, categorical truth of a proposition. Because Blackfoot event-anchoring via Person/Participancy does not entail asserting the existence of an objective real-world event, I argue that Blackfoot propositions therefore need not be instances of objective, categorical truth-claims.

In seeking evidence for this proposal, I looked to Blain & Déchaine's (2007) observation that languages can differ according to the default illocutionary force of their unmarked utterances. Thus where English has a categorical truth-assertion as its default, unmarked illocutionary force, weaker, perspectival assertions or "presentations" being overtly marked; a language like Plains Cree has a weaker, perspectival assertion or "presentation" as its default, unmarked illocutionary force, categorical truth-assertions being overtly marked. In order to adapt Blain & Déchaine's observations with the Parametric Infl Substantiation Hypothesis as put forth by Ritter & Wiltschko, in section two I recast Ritter & Wiltschko's Parametric Infl Substantiation Hypothesis such that the parametric choice of whether a language anchors events via temporal, spatial or personal means is formulated as a markedness distinction, as opposed to a discrete distinction. Thus where Ritter & Wiltschko's original proposal holds that English, Halkomelem and Blackfoot differ discretely according to the content of their anchoring node Infl, Infl in English being the temporal anchoring node Tense, Infl in Halkomelem being the spatial anchoring node Location, and Infl in Blackfoot being the personal anchoring node Person/Participant, I suggest that the parameter setting can be modified such that languages can anchor all three types of anchoring – temporal, spatial or personal – but that each language has a default, unmarked option. In English, temporal anchoring is default, in Halkomelem, spatial anchoring is default, and in Blackfoot, personal anchoring is default.

With this provision in place, in section three I argued that the behaviour of the epistemic modal *na-* in Blackfoot is compatible with an analysis in which *na*-marked clauses are instances of Blackfoot accessing one of its marked anchoring options – specifically temporal anchoring. This proposal is motivated by the observation made by Bliss & Ritter (2007) that *na*-marked clauses are associated with greater illocutionary or assertive strength than unmarked clauses. I argue this to be evidence that *na-*

marked clauses are instances of objective, categorical truth-assertions, whereas unmarked clauses, by corollary, are not. Evidence for this analysis presents in i) the fact that *na*-marked clauses are associated with temporal semantics in that they are necessarily past-tense, and ii) the fact that *na-* is in complementary distribution with the morphological instantiations of unmarked event-anchoring in Blackfoot – i.e., the personal prefixes *nit-*/*kit-*.

6.0 CONCLUSION AND DIRECTIONS FOR FURTHER RESEARCH

6.1 Summary of Thesis

The main claim of this thesis is that the Parametric Infl Substantiation Hypothesis - as proposed by Ritter & Wiltschko (2005) and summarized below – has consequences for Blackfoot's syntax-semantics interface.

(218) THE PARAMETRIC INFL SUBSTANTIATION HYPOTHESIS:

-Infl is the universal anchoring node;
-Its content determines how the predicated event is anchored to the speech-event
-Languages have a parametric choice as to the content:

Clausal Anchoring node IP:
a. Tense (TP)
b. Location (LocP)
c. Speech-Act-Participant (PartP)

English	→	a. Tense (IP=TP)
Halkomelem	→	b. Location (IP=LocP)
Blackfoot	→	**c. Person/Speech-Act-Participants (IP=PartP)**

I proposed two main areas where Blackfoot's grammar would be affected. These are summarized in (219):

(219) **BLACKFOOT**: Consequences for the Syntax-Semantics Interface

a) FOR SUB-EVENTS AND EVENT-STRUCTURE

Where English encodes relations between sub-events via temporal notions (inner aspect), Blackfoot encodes relations between sub-events via notions of person/participancy.

b) FOR ASSERTING EXISTENCE AND TRUTH-VALUES

i) OF INDIVIDUALS (EXISTENCE):

Where English encodes assertions of existence, Blackfoot encodes subjectivized notions associated with the speech-act participants.

ii) OF EVENTS (EXISTENCE) = OF PROPOSITIONS (TRUTH-VALUES):

Where English encodes objective truth-assertions, Blackfoot encodes subjectivized notions associated with the speech-act participants.

First I argued that if Blackfoot encodes the relationship between events (eg., the predicated event, and the speech-event) via notions of participancy as opposed to via temporal notions, then it is possible that Blackfoot also encodes the relationship between sub-events (eg. initiating sub-event, process sub-event, resultant sub-event) via notions of participancy as opposed to via temporal notions. I argued that by adopting this proposal, we can account for the fact that where English shows a syntactic sensitivity to temporally-defined verb-classes (Vendler's aspectual classes), Blackfoot shows a parallel syntactic sensitivity to verb-classes defined by the sub-event participants (Bloomfield's II/AI/TI/TA verb classes). There are two consequences for this proposal. One, in order to properly derive Blackfoot's verb classes, we need to assume that intransitive verbs in Blackfoot are all syntactically unaccusative. I showed that Blackfoot shows evidence for this in that its intransitive verbs do not appear to display an unaccusative/unergative distinction with respect to lexical causatives and that the default (outer) aspectual interpretation of eventive predicates is always perfective. Second, in proposing the II/AI/TI/TA distinction as represented syntactically (as opposed to Bloomfield and Frantz's characterization of this distinction as morphological), I predicted that the status of the direct objects of paratransitive verbs (which inflect as if intransitive but take direct objects) are syntactically distinct from the status the direct objects of true transitive verbs. I argued that Blackfoot also shows evidence for this with respect to the semantics of these objects, in that the direct objects of paratransitives are necessarily "non-particular," and behave like predicates of type <e,t> as opposed to entities of type e.

As for the second area where Blackfoot's grammar is affected, I argued that anchoring via the inherently subjective category Person/Participancy differs substantially as compared to anchoring via

the ostensibly objective category Tense, and that this has consequences for assertions of existence and truth-values. Following Ritter & Wiltschko, who propose that their anchoring proposal holds for all entities - individuals, as well as events - I assumed that any proposed consequences likewise holds for both individuals and events. The main intuition driving the investigations of this section is that by anchoring an entity via the ostensibly objective category Tense, one objectively asserts the existence of the relevant entity in the real, extensional world. By anchoring via the inherently subjective category Person, however, one need not make such a strong claim, and may instead assert something more subjective, related to the speech-act-participants. Looking for evidence to justify this claim, I looked first at individuals, focusing on a context where the asserted material of nominals are necessarily forced within the scope of negation – i.e., Negative Polarity Items (NPIs). I showed that where English NPIs show an existential property that is forced within the scope of negation, Blackfoot NPIs instead show a property of *speech-act-participancy* that is forced within the scope of negation.

With respect to the consequences associated with asserting the existence of events, I argued that the relevant phenomenon to assess is the status of truth-assertions, motivated by the intuition that asserting existence of an objective, real-world event is equivalent to asserting the objective, categorical truth of a proposition. Because Blackfoot event-anchoring via Person/Participancy does not entail asserting the existence of an objective real-world event, I argued that Blackfoot propositions therefore need not be instances of objective, categorical truth-assertions. In seeking evidence for this claim, I looked to Blain & Déchaine's proposal that a language's default illocutionary force need not be categorical truth-assertion. To make the framework of this thesis compatible with Blain & Déchaine's proposal, I recast Ritter & Wiltschko's Parametric Infl Substantiation Hypothesis such that the parametric choice of anchoring node is formulated as a markedness parameter, as opposed to a discrete parameter. Under this reformulation, a language's IP can access either temporal, spatial or personal anchoring, however, one method of anchoring is set as the default, or unmarked option. For English, the default anchoring mechanism is temporal, whereas for Blackfoot the default anchoring mechanism is personal. With this reformulation, I recast my argument such that default, unmarked Blackfoot propositions are not instances of objective, categorical truth-assertions. I argued that the distributional and semantic generalizations surrounding the epistemic modal *na-* constituted evidence for the corollary argument – that instances of objective, categorical truth-assertions in Blackfoot are marked.

6.2 Unresolved Issues and Directions for Further Research

6.2.1 Unresolved Issues for Blackfoot

In arguing that Blackfoot sub-events are related by notions of participancy, as opposed to via temporal notions, in effect I am arguing that the semantic notions which play a large role in most studies on event structure, such as telicity/dynamicity and boundedness, do not play a role in Blackfoot event structure. Because of the limited scope of my study, I took only a cursory glance at the consequences for the clausal domain, and did not even look for any consequences for the nominal domain. This thus leaves a major roads open for future research.

Looking for possible consequences on the nominal domain is a valid pursuit in that several researcher argue that the semantic property encoded by syntactic telic/atelic distinction on the clausal domain is the same semantic property encoded by the syntactic mass/count distinction on the nominal domain. For example, Krifka proposes that this is a semantic distinction of "quantization[113]", and Borer (2005) characterizes this as a semantic distinction of "quantity[114]." Now, assuming i) that this semantic property of "quantity/quantization" is not syntactically encoded on Blackfoot's clausal domain, and ii) that the nominal and clausal domain are parallel both in structure and the semantic properties they encode, this predicts that there is no "quantity/quantization" distinction – i.e., mass/count distinction - encoded syntactically on Blackfoot's nominal domain. Whether Blackfoot shows evidence for this prediction is thus a question for further research. Note, however, that there are indications that this prediction may bear fruit. As an example, Blackfoot nominals appear to show fewer restrictions than English nominals, with respect to pluralization. In particular, where the plural morpheme in English is

---

[113] (11) Krifka's (1998) Notion of Quantized

$\forall X \subseteq_P [QUA_P(X) \leftrightarrow \forall x,y[X(x) \wedge X(y) \rightarrow \neg Y <_p X]]$
(X is quantized iff for all x,y with the property X, y is not a proper part of x)

[114] (12) Borer's (2005) notion of "Quantity"

a) P is quantity iff P is not homogenous

b) P is homogenous iff P is cumulative and divisive

i. P is divisive iff $\forall x[P(x) \rightarrow \exists y(P(y) \wedge y>x)] \wedge \forall x,y[P(x) \wedge P(y) \wedge y<x \rightarrow P(x-y)]$
ii. P is cumulative iff $\forall x\ [P(x) \wedge P(y) \rightarrow P(xUy)]$

restricted from appearing with mass nouns, in Blackfoot there appears to be no such restriction – semantically plausible "mass" nouns like *snow,* and *ice-cream* can be pluralized grammatically.

(220)

a)	omi istónnikis	"ice-cream"
b)	omistsi istónnikists	"ice-creams"
c)	omi koonsko	"snow"
d)	omistsi koonskoistsi	"snows"

A follow-up question that arises from this line of thought is as follows: If the semantic property of "quantity/quantization" is not being syntactically encoded in Blackfoot, on either the nominal or clausal domain, what exactly *is* being encoded? Thus while I suggested that the direct/inverse morphemes encode the relationship between Blackfoot's sub-event participants, I did not give a detailed breakdown as to the actual semantics encoded in the relevant morphemes. This I leave again, as a venue for further research. There are, however, some clues as to the direction of this further research. Recall that where English aspectual verb classes are sensitive to whether or not their arguments are mass/count and plural/singular, the II/AI/TI/TA verb classes in Blackfoot are sensitive to whether or not their arguments are animate/inanimate and sentient/non-sentient. This suggests that although the animate/inanimate distinction is usually characterized as being parallel to a gender distinction, its proper syntactic parallel is actually the mass/count distinction. Whether the animate/inanimate distinction, and the semantic properties encoded by the direct/inverse morphemes can be unified under one semantic distinction is thus a possible goal for future research.

6.2.2 Unresolved Crosslinguistic Implications for Event Structure

In the above proposal, I argued that argument structure in English is defined along lines of temporal aspect, whereas argument structure in Blackfoot is defined along lines of person/participancy.

(221) Different instantiations of the VP Realm: Event Structure

UG:	**English:**	**Blackfoot:**
VP	VP (temporal)	VP(person/participancy)
Event Roles	*Aspectual Roles*	*Event Participant Roles*
(____ , ____)	(initiator, measure)	(agent, partic2)

These two notions – temporal aspect and person – are two lines along which it is common for languages to make a distinction between a nominative-accusative pattern and an ergative-absolutive pattern. One question to ask is whether this is just a coincidence – or whether it hints of a deeper connection between argument/event structure and ergativity. If this is not a coincidence, questions arise about where i) the other lines among which languages may show a split-ergative pattern (eg. clause-typing, agentivity), and where ii)the possibility of relating sub-events via spatial/locational mechanisms, might fit into the picture. Whether these separate threads can be connected into a consistent account of cross-linguistic difference in split ergativity is thus a possible direction for further research.

Another unresolved issue with respect to cross-linguistic implications concerns the fact that I presented the II/AI/TI/TA distinction in Blackfoot as evidence that Blackfoot relates sub-events via notions of participancy as opposed to temporal aspect. The issue is that the II/AI/TI/TA distinction is not a Blackfoot-exclusive phenomenon –this verb-class distinction is a phenomenon that holds for most Algonquian languages. The question here is whether this fact hints at a deep similarity such that that sub-events in all Algonquian languages are related via notions of participancy, as opposed to via notions of temporal aspect, or whether the family-wide verb distinction is akin to a biological homology that derives from a common ancestry, yet has evolved into fundamentally distinct structure (albeit with a similar appearance). Thus whether the evidence provided for Blackfoot – i.e., the lack of unaccusative/unergative distinction, and the semantic distinction between the objects of paratransitive and true transitive verbs – hold also for other Algonquian languages is a question for further research. This issue of whether or not the proposals for Blackfoot hold for other Algonquian languages is a legitimate question to ask because although Blackfoot can be characterized as lacking the functional category Tense – and thus lacking temporal anchoring, the same cannot be said for related all related Algonquian languages. Notably, Lochbihler & Mathieu (2008) have argued that Ritter & Wiltschko's

proposal for Blackfoot cannot be extended to Ojibwe. They provide evidence concerning obligatory wh-agreement, which they argue requires T to be a functional head[115].

The third unresolved issue is related to the issue addressed above. Just as there are unresolved implications for a language like Ojibwe – which may show homologies to Blackfoot with respect to the issue of relating sub-events via Person/Participancy, but not with respect to being tenseless – there are also unresolved implications for languages that *have* been claimed to be tenseless, yet do not appear to lack distinctions of telicity, or any evidence that they relate sub-events to each other in an atemporal way. An example of such a language is Chinese (cf. Lin 2003, 2005).What these two issues raise is the question of whether a language may relate events via one means, yet relate its sub-events via a different means – i.e., is it possible that a language relates predicated events to utterance events via, for example, temporal means, yet relate its sub-events to each other via means of participancy? Or for a language to relate predicated events to utterance events via means of person/participancy, yet relate it sub-events via temporal means (or any other combinatorial permutation)?

6.2.3 Unresolved Crosslinguistic Implications for Atemporal Entity Anchoring

The concerns for tenseless languages also hold for the second proposal of this thesis – that objective assertions of existence, and objective assertions of truth, are a by-product of anchoring entities via an objective means like Tense. The question is whether or not other so-called "tenseless" languages show parallel behaviour with respect to assertions of existence and truth. If I am on the right track, then inquiries into existential assertions on the nominal domain, and truth-values on the clausal domain, could prove a diagnostic as to whether or not the language under debate is tenseless in the sense presented by Ritter & Wiltschko (2005), or only appears tenseless due to other interfering factors. It can likewise provide clues, if the language is deemed truly tenseless, as to the content that may instantiate Infl for that particular language. For example, one premise that can be drawn from the analysis presented in this thesis is that the semantic properties of a language's negative polarity items (NPIs) vary with respect the semantic properties encoded on the language's IP[116]. In particular, the

[115] Another possibility is that Ojibwe may be an instance of a language with an Infl-Asp misalignment, such that Ojibwe Infl is substantiated with temporal content, unlike Blackfoot, but Ojibwe Asp is substantiated with content relating to participancy, like Blackfoot. This would predict that Ojibwe would (in unmarked cases) lack sensitivity to the mass/count distinction, as well as notions of telicity/dynamicity. See Mathieu 2007, however, for arguments that Ojibwe does encode the mass/count distinction, and Slavin 2007, for suggestions that notions of telicity are relevant for Oji-Cree.

[116] Thanks to Martina Wiltschko for pointing me towards Carrie Gillon's dissertation, to find possible candidates for narrow-"locational" scope NPIs in Salish.

property that is necessarily narrow-scope will mirror the content of Infl. Here I present a very preliminary look at possible implications for Salish.

Ritter & Wiltschko (2005) argue that Upriver Halkomelem (Salish) also lacks the syntactic node Tense, instead anchoring events to utterances via a Location node. Taken with my analysis, this then predicts that NPIs in Upriver Halkomelem might have a narrow scope "location" property. While I do not have relevant data for Upriver Halkomelem, there may be evidence of a narrow-scope "location" NPI from other Salish languages. I tentatively suggest what Gillon (2006) terms "non-deictic polarity D-determiners" to be examples of such[117].

Gillon (2006) proposes that Skwxwú7mesh D-determiners[118] differ according to whether they have deictic properties, or whether they don't have deictic properties. She provides evidence that this distinction shows up in several other Salish languages, and that in some languages (Nlhe7kepmxcín, St'at'imcets, Nuxalk) the non-deictic D-determiners appear to be polarity items as well. The following quote describes the properties of the non-deictic D-determiners in Nlhe7kepmxcín:

> It appears that *k* is a non-assertion of existence D-determiner or **polarity item**, as it is almost **exclusively found in non-factive sentences** (Karsten Koch p.c.)…it also **appears to lack deictic features**, as in the examples above, **the referents are not located**.
>
> (Gillon 2006:200, my emphasis)

While the properties of these non-deictic polarity D-determiners have yet to be fully investigated with respect to the prediction made, the above facts appear compatible with the idea that the semantic properties of a language's NPIs vary according to the type of semantic properties encoded in the language's IP. Note, however, that the above data suggests that Location (spatial anchoring), like Tense (temporal anchoring), is sufficiently objective such that the NPI is still narrow-scope with respect to existence. This is expected, considering that by asserting an entity to be either here, or not-here, one is presumably making an assertion about the real, extensional world.

[117] These refer to Nuxalk (Bella Coola) "a-type" DPs, Nlehe7kepmxcin k-DPs, and St'at'imcets ku-DPs. I have yet to fully research these.
[118] Where D-determiners refer only to determiners that have traditionally been called "articles," excluding elements like quantifiers, demonstratives and numerals.

6.3 Conclusion

One of the main claims of Ritter & Wiltschko (2005) is that the lack of obligatory tense morphemes in Blackfoot reflects a deep syntactic difference, as opposed to a superficial morphological difference, between a language like English on the one hand, and a language like Blackfoot on the other hand. If the lack of obligatory tense morphemes is analyzed as being superficial, they argue, then the lack of syntactic properties associated with the functional category tense – such as case-marking, EPP-driven movement and the finite/non-finite distinction, must be attributed to coincidence.

The goal of this thesis was to show that if the lack of obligatory tense morphemes in Blackfoot is analyzed as a deep syntactic difference, as opposed to superficial morphological difference, then several phenomena along the syntax-semantics interface - such as the four-way II/AI/TI/TA verb stem distinction, the direct/inverse system, and interactions with the (in)animacy distinction - can be viewed as person-driven parallels of more familiar and established phenomena from languages like English, such as Vendler's aspectual verb-classes, the telic/atelic distinction, and interactions with the mass/count distinction respectively. If one assumes instead that the lack of obligatory tense morphemes in Blackfoot is a superficial morphological difference, on the other hand, then these core aspects of Blackfoot's grammar must instead be viewed as language-specific[119] phenomena utterly distinct from the phenomena observed in the less understudied Indo-European languages.

Similarly, the semantically anomalous properties associated with Blackfoot's NPIs, and the fact that there is an epistemic modal in Blackfoot that lends strength to assertions (as opposed to the more standard property of weakening the strength of assertions), can be derived from Ritter & Wiltschko's proposed parametric difference, instead of being written off as language-specific idiosyncrasies. These are the advantages to taking seriously the ideas proposed in this thesis.

Another aspect of the proposals offered here is the way in which they illuminate voids in formal linguistic theory. Although person-animacy hierarchies and related phenomena are also attested in well-studied languages like Spanish, Hindi and Persian (cf. Bosso 1991, Mohanan 1990 and Karimi 1996 respectively), there is little in the way of formal semantic theory to account for these phenomena. If, as I have suggested, encoding distinctions of person/participancy and animacy can be viewed as

[119] Or perhaps language family-specific

parallel to encoding the telic/atelic and count/mass distinction, both of which can be formally captured in terms of a semantic property like quantity or quantization (cf. Krifka, Borer), then the lack of a formal semantic representation for participancy and animacy appears as a paradigmatic gap in current linguistic theory. The proposals offered here also raise questions regarding the standard semantic views of truth-values and modality. Compositional semantics standardly assumes the categorical truth-assertion to be the basic unmarked proposition, where the interpretation of modalized propositions is derived by embedding the default truth-assertions under additional semantic operators[120]. If we are to accommodate the claim explicit in the proposals here - that unmarked utterances in Blackfoot[121] are not categorical truth-assertions - then the universality of this standard formal treatment must be questioned.

In conclusion, I argue that the proposals drawn in this thesis make for a simpler, more universal understanding of Blackfoot morphosyntax, while also highlighting directions for future attempts at formalizing Blackfoot semantics. While the issues and phenomena raised here – sensitivity to person/animacy, participancy and subjectivized truth-assertions - are generally treated as marked, or peripheral phenomena in better studied languages, for Blackfoot these represent core-phenomena of its grammar. Blackfoot thus provides a valuable venue for future attempts at formalizing a semantics for these phenomena, such that investigation into this understudied language may provide the key to a better understanding of language and linguistics in general.

[120] eg. formalizing modals as functions that take propositions (with default, objective truth-values) as arguments.
[121] as well as languages like Cree and Cuzco Quechua

REFERENCES

Adger, David. 2003. *Core syntax: a minimalist approach*. Oxford.

Aljović, Nadira. 2000. "Unaccusativity and aspect in Serbo Croatian". In *Proceedings of ConSOLe 8,* eds. C. Czinglar, K. Köhler et al., Leiden: SOLB.

Asher, Nicholas. 1993. *Reference to Abstract Objects in Discourse.* Dordrecht: Kluwer Academic Press.

Asher, Nicholas. 2000. "Events, Facts, Propositions, and Evolutive Anaphora." In *Speaking of Events,* eds. J. Higginbotham, F. Pianesi and A. Varzi, 123-150. New York, Oxford: Oxford University Press.

Bach, Emmon. 1981. "On Time, Tense, and Aspect: An Essay in English Metaphysics." In *Radical Pragmatics*, ed. P. Cole, 63-81. Academic Press, New York.

Baeuerle, R. 1987. *Ereignisse und Repräsentationen*. Habilitationschrift, Universität Konstanz.

Baker, Curtis L. 1970. "Double negatives." *Linguistic Inquiry* 1:169-186.

Baker, Mark. 1988. *Incorporation: A Theory of Grammatical Function Changing.* Chicago, Ill.: University of Chicago Press.

Bennett, Jonathan. 1988. *Events and their Names.* Hackett Press, Indianapolis.

Bennett, Michael and Barbara Partee. 1978. Toward the Logic of Tense and Aspect in English. Indiana University Linguistics Club, Bloomington.

Bennis, H., M. den Dikken and N. Corver. 1998. "Predication in Nominal Phrases". *Journal of Comparative Germanic Syntax* 1: 85-117.

Blain, Eleanor and Rose-Marie Déchaine. 2006. "The Evidential Domain Hypothesis." WSCLA 11, 12-25.

Blain, Eleanor and Rose-Marie Déchaine. 2007a. "The Pragmatic Basis of Evidentiality: Presentation of Information." Paper read at the 39th Algonquian Conference, York University, October 20th, 2007.

Blain, Eleanor and Rose-Marie Déchaine. 2007b. "Evidential Types." *IJAL* 73:257-291.

Bliss, Heather and Elizabeth Ritter. 2007. "Grammaticalizing Information Status in Siksiká Blackfoot: A Tenseless Analysis". In *Proceedings of WSCLA 12*, University of Lethbridge.

Bloomfield, Leonard. 1946. “Algonquian.” *Linguistic Structures of Native America*, pp. 85-129.

Bohnemeyer, Jürgen and Mary Swift. 2004. "Event Realization and Aspectual Interpretation." *Linguistics and Philosophy*, 27(3): 263-296.

Boolos, George. 1981. “For Every A There is a B.” *Linguistic Inquiry* 12(3): 465-467.

Borer, Hagit. 2005a. *In Name Only (Structuring Sense Vol. I).* New York: Oxford University Press.

Borer, Hagit. 2005b. *The Normal Course of Events (Structuring Sense Vol. II).* New York: Oxford University Press.

Bossong, G. 1991. Differential object marking in Romance and beyond, in *New Analysis in Romance Linguistics: Selected Papers from the XVIII Linguistics Symposium on Romance Languages* eds. D. Wanner and D. Kibbee, 143-170. John Benjamins Publishing Company, Amsterdam/Philadelphia.

Brandtler, Johan. 2006. "On Aristotle and Baldness – Topic, Reference, Presupposition of Existence and Negation", In *Working Papers in Scandinavian Syntax* 77.

Branigan, Phil, and Marguerite MacKenzie. 2002. “Altruism, Ā-Movement, and Object Agreement in Innu-aimûn.” *Linguistic Inquiry* 33(3): 385-407.

Bruening, Benjamin. 2001. “Syntax at the Edge: Cross-Clausal Phenomena and the Syntax of Passamaquoddy.” Dissertation, MIT.

Carlson, L. 1981. “Aspect and quantification.” *Syntax and Semantics* 14: 31-64.

Chafe, Wallace. 1986. “Evidentiality in English Conversation and Academic Writing.” In *Evidentiality: The Linguistic Coding of Epistemology* , eds. W. Chafre and J. Nichols, 361-272. Norwood: New Jersey.

Cheng, Lisa and Rint Sybesma. 2005. "Classifiers in 4 Varieties of Chinese", In *The Oxford handbook of comparative syntax* , eds. Guglielmo Cinque and Richard Kayne, 259-292. New York: OUP USA.

Chierchia, G. 1995. "Individual Level Predicates as Inherent Generics." In *The Generic Book*, eds. Carlson and Pelletier, 176-223. The University of Chicago Press, Chicago.

Chomsky, Noam. 1981. *Lectures on government and binding.* New York: Mouton de Gruyter.

Chomsky, Noam. 1986. *Barriers.* MIT Press.

Chomsky, Noam. 1995. *The Minimalist Program.* MIT Press, Cambridge, Mass.

Chung, Sandra, and William A. Ladusaw. 2004. *Restriction and Saturation*. MIT Press.

Cinque, Gugliemo. 1999. *Adverbs and Functional Heads.* New York: Oxford University Press.

Cohen, Ariel and Nomi Erteschik-Shir. 2002. "Topic, Focus, and the Interpretation of Bare Plurals", *Natural Language Semantics* 10:125-165.

Condoravdi, Cleo. 2001. Temporal interpretation of modals: Modals for the present and for the past. In *Stanford Papers on Semantics* , eds. David Beaver, Stefan Kaufmann, Brady Clark and Luis Casillas, 1-30. Stanford, CA: CSLI.

Cook, Clare. 2007. "The Interaction of Evidential Force and Clause-typing in Plains Cree." Ms., UBC.

Cook, Clare and Jeff Muehlbauer. 2007. "Constructing Presence in Plains Cree." WSCLA 12.

Copley, Bridget. 2002. The Semantics of the Future. Ph. D. thesis, MIT. In press in Garland's Outstanding Dissertations in Linguistics series.

Dahlstrom, Amy. 1991. *Plains Cree Morphosyntax.* Taylor & Francis.

Davidson, Donald. 1967a. "The Logical Form of Action Sentences." In *Stanford Papers on Semantics* , ed. N. Rescher, 81-95. Pittsburgh: University of Pittsburgh Press.

Davidson, Donald. 1967b. "Causal Relations." *The Journal of Philosophy* 64(21):691-703.

Déchaine, Rose-Marie, and Martina Wiltschko. 2002. "Decomposing Pronouns", *Linguistic Inquiry 3*3:409-442.

Déchaine, Rose-Marie. 1999. What Algonquian Morphology is Really Like (Hockett Revised). *MIT Working Papers in Linguistics* 17:25-72.

Diesing, Molly. 1992. Indefinites. Cambridge, Mass.: MIT Press

Donaldson, Tamsin. 1980. *Ngiyambaa: the Language of the Wangaaybuwan*. Cambridge: Cambridge University Press.

Dowty, David R. 1972. "Studies in the Logic of Verb Aspect and Time Reference in English."

Dowty, David R. 1979. *Word Meaning and Montague Grammar: The Semantics of Verbs and Times in Generative Semantics and in Montague's Ptq.* Springer.

Dowty, David R. 1991. "Thematic Proto-roles and Argument Selection". *Language* 67:547-619.

Dunham, Joel. 2007. The "durative" in Blackfoot: understanding imperfectivity. Paper presented at SULA 4, USP São Paulo, Brazil.

Elouazizi, Noureddine and Martina Wiltschko. 2006. The categorical status of subject verb agreement. Presented at the UBC Department of Linguistics Research Seminar.

Enç, Mürvet. 1987. "Anchoring conditions for tense". *Linguistic Inquiry* 18:633-657.

Enç, Mürvet. 1996. Tense and Modality. In *The Handbook of Contemporary Semantic Theory*, ed. Shalom Lappin. Oxford: Blackwell.

Faller, Martina. 2002. "Semantics and Pragmatics of Evidentials in Cuzco Quechua." Ph.D. Dissertation, Stanford.

Frantz, Donald. G. 1978. "Copying from complements in Blackfoot." In *Linguistic Studies of Native Canada*, eds. Eung-Do Cook and Jonathan Kaye*,* 89–109.

Frantz, Donald G. and Norma Jean Russell. 1989. *Blackfoot dictionary of Stems, Roots and Affixes.* Toronto: University of Toronto Press.

Frantz, Donald G. 1991. *Blackfoot Grammar*. Toronto: University of Toronto Press.

Galloway, Brent D. 1993. *A Grammar of Upriver Halkomelem*. University of California

Press Berkeley.

Geurts, Bart. 2007. "Existential import", In *Existence: Semantics and syntax,* eds. Ileana Comorovski and Klaus von Heusinger, 253-271. Springer, Dordrecht.

Giannakidou, Anastasia. 1998. *Polarity Sensitivity as (Non)veridical Dependency*. Amsterdam and Philadelphia: John Benjamins.

Gillon, Carrie. 2006. "The semantics of determiners: Domain restriction in Skwxwú7mesh". Ph. D Dissertation, The University of British Columbia.

Glougie, Jennifer R.S. 2000. "Topics in the syntax and semantics of Blackfoot quantifiers and nominals", MA thesis. University of British Columbia, Canada.

Grohmann, Kleanthes. 2000. "Prolific Peripheries: A Radical View from the Left." Ph. Dissertation, University of Maryland, College Park.

Hale, Kenneth. 1986."Notes on World View and Semantic Categories: Some Warlpiri Examples." In *Features and Projections,* eds. Pieter Muysken and Henk van Riemsdijk, 233-254.

Hale, Kenneth, and S. Jay. Keyser. 1993. "On argument structure and the lexical expression of syntactic relations". In *The view from Building 20: Essays in Honour of Sylvain Bromberger,* eds. Ken Hale and S.J. Keyser. Cambridge, Mass.: MIT Press.

Hale, Kenneth, and S. Jay Keyser. 2002. *Prolegomenon to a Theory of Argument Structure.* vol. 39: Linguistic Inquiry Monographs, Cambridge, MA: MIT Press.

Heim, Irene, and Agelika Kratzer. 1998. *Semantics in Generative Grammar.* Blackwell

Publishers.

Higginbotham, James. 1985. "On semantics." *Linguistic Inquiry* 16(4):547-593.

Higginbotham, James. 2000. "On Events in Linguistic Semantics." In *Speaking of Events,* eds. J. Higginbotham, F. Pianesi and A. Varzi, 123-150. New York, Oxford: Oxford University Press.

Hoekstra, Teun: 1984, Transitivity. Grammatical Relations in Government-Binding Theory, Foris Publications, Dordrecht.

Huang, S. Z. 2005. *Universal quantification with Skolemization as evidenced in Chinese and English*. New York: Edwin Mellen Press.

Jelinek, E. 1984. "Empty categories, case, and configurationality." *Natural Language & Linguistic Theory 2*(1):39-76.

Jong, F. de and H. Verkuyl. 1985. "Generalized Quantifiers: the Properness of their Strength", in *Generalized Quantifiers in Natural Language,* eds. J. van Benthem and A. ter Meulen. Foris, Dordrecht.

Karimi, S. 1996. "Case and specificity: Persian *ra* revisited." *Linguistic Analysis 26*(3-4), 174–
194.

Kearns, Kate. 2000. *Semantics*. New York, N.Y.:Pargrave Macmillan

Klein, Wolfgang. 1994. *Time in Language.* London: Routledge.

Klima, Edward S. 1964. "Negation in English", in *The Structure of Language,* eds. J. Fodor and J. Katz,
Englewood Cliffs: Prentice-Hall.

Kölbel, Max. 2002. *Truth without objectivity*. Routledge: London.

Kratzer, Angelika. 1998a. More structural analogies between pronouns and tenses. In *Semantics and Linguistic Theory VIII*, eds. D. Strolovitch and A. Lawson, 92-128. Ithaca, New York, Cornell Linguistics Circle.

Kratzer, A. 1988. Stage-level and Individual-level Predicates. In *Genericity in Natural Language*, ed. Manfred Krifka, 247–284. University of Tübingen. [Also published 1995, In *The Generic Book*, eds. Carlson and Pelletier, 125-175. The University of Chicago Press, Chicago.]

Kratzer, Angelika. 1989. "An Investigation of the Lumps of Thought." *Linguistics and Philosophy 12*:607-653.

Kratzer, Angelika. 1991. Modality. In *Semantics: An International Handbook of Contemporary Research*, eds. D. Wunderlich and A. von Stewchow, 639-650. Berlin: de Gruyter.

Kratzer, Angelika. 1998. "Scope of Pseudo-scope: Are there wide-scope indefinites?" In *Events in Grammar*, ed. Rothstein, 163-196. Dordrecht: Kluwer.

Krifka, Manfred. 1986. "Nominalreferenz und Zeitkonstitution". Zur Semantik von Massentermen, Individualtermen, Aspektklassen. Ph.D. Thesis, The University of Munich, Germany. [1989. *Nominalreferenz und Zeitkonstitution*. Zur Semantik von Massentermen, Individualtermen, Aspektklassen. Wilhelm Fink Verlag Munchen.]

Krifka, Manfred. 1989. "Nominal reference, temporal constitution and quantification in event semantics." *Semantics and Contextual Expression* 11: 75–115.

Laca, B. 1990. "Generic Objects: Some More Pieces of the Puzzle", *Lingua* 81:25-46.

Ladusaw, William. 1994. "Thetic and categorical, stage and individual, weak and strong", In *Proceedings from Semantics and Linguistic Theory IV,* ed. By Mandy Harvey and Lynn Santelmann, 220-229. Ithaca, N.Y.: Cornell University, CLC Publications.

Lappin, S. and T. Reinhart. 1985. "Presuppositional Effects of Strong Determiners: A Processing Account", *Forum for Modern Language Studies* 21(3):1021-1037.

Lewis, David. 1975. "Adverbs of Quantification." In *Formal Semantics of Natural Language* , ed. Ed Keenan, 1-40. Cambridge: Cambridge University Press.

Lin, Jo-Wang. 2003. "Temporal Reference in Mandarin Chinese." *Journal of East Asian Linguistics* 12:259-311.

Lin, Jo-Wang. 2005. "Time in a Language Without Tense: The Case of Chinese." *Journal Semantics* 23:1-53.

Linebarger, Marcia. 1980. "The grammar of negative polarity', Dissertation, MIT; distributed by the Indiana University Linguistics Club, 1981.

Lochbihler, Bethany and Eric Mathieu. 2008. "Wh-agreement in Ojibwe: consequences for feature inheritance and the categorical status of tense." Paper read at the 13th Workshop on the Structure and Constituenecy in Languages of the Americas, Queen's University, March 28th-30th.

Mathieu, Eric. 2007. Mass terms in Ojibwe. Ms.

Longobardi, G. 1994. "Proper names and the theory of N-movement in syntax and logical form", *Linguistic Inquiry 25*, 609–665

Matthewson, Lisa. 1996. "Determiner systems and quantificational strategies: evidence from Salish." Dissertation, The University of British Columbia.

Matthewson, Lisa. 2003. "An underspecified tense in St'át'imcets." *Proceedings of WECOL.*

McDowell, Joyce. 1991. "Quasi-Assertion." *Journal of Semantics* 8:311-331.

McFadden, T. 2004. "The Position of Morphological Case in the Derivation." Dissertation, University of Pennsylvania.

Mithun, Marianne. 1999. *The Languages of Native North America.* Cambridge University Press.

Moens, Marc. 1987. "Tense, aspect and temporal reference." Doctoral dissertation, University of Edinburgh.

Mohanan, T. 1990. "Arguments in Hindi." Dissertation, Stanford University.

Montague, R. 1969. "On the Nature of Certain Philosophical Entities. In The Monist 53:159-194. Reprinted 1974 In *Formal Philosophy*, ed. R. Montague and R.H. Thomason, 149-187. New Haven, Connecticut: Yale University Press.

Mourelatos, A. P. D. 1978. "Events, processes, and states." *Linguistics and Philosophy* 2(3): 415-434.

Palmer, Frank Robert. 1986. *Mood and Modality*. Cambridge Textbooks in Linguistics. First Edition.

Parsons, Terrence. 1990. *Events in the Semantics of English: A Study in Subatomic Semantics.* Cambridge, Massachusetts: MIT Press.

Pesetsky, D., and E. Torrego. 2001. “T-to-C movement: Causes and consequences.” In *Ken Hale: A life in language*, ed. Michael Kenstowicz, 355–426.

Pesetsky, D. and E. Torrego. 2002. "Tense, Case, and the Nature of Syntactic Categories". In *The Syntax of Time*, eds. Jacqueline Guéron and Jacqueline Lecarme, 495-538. Cambridge, Mass.: MIT Press.

Pollock, Jean-Yves. 1989. “Verb Movement, UG and the Structure of IP.” *Linguistic Inquiry* 20:365-424.

Progovac, Ljiljana. 1994. *Negative and positive polarity: A binding approach*. New York: Cambridge University Press.

Prezipiórkowski, Adam. 1999. “On Negative Eventualities, Negative Concord and Negative Y/N Questions.” In *Proceeding of Semantics and Linguistic Theory 9,* eds. T. Matthews and D. Strolovitch, 237-254. Ithaca, NY: CLC Publications.

Quine, W.V.O. 1985. “Events and Reification,” in *Actions and events: perspectives on the philosophy of Donald Davidson,* eds. E. Lepore and P.P. McLaughlin. Oxford: Blackwell.

Ramchand, Gillian. 2003. "First Phase Syntax". Ms. University of Tromsø.

Reis-Silva, Maria Amelia and Lisa Matthewson. 2007. "An Instantaneous Present Tense in Blackfoot." Proceedings of SULA 4.

Ritter, Elizabeth. 1995. “On the syntactic category of pronouns and agreement”, *Natural Language& Linguistic Theory* 13:405–443

Ritter, Elizabeth and Martina Wiltschko. 2004. “The lack of tense as a syntactic category.” Evidence from Blackfoot and Halkomelem. *Papers for the 39th International Conference on Salish and Neighbouring languages,*341-370.

Ritter, Elizabeth, and Sarah Rosen. 2005. “Agreement without A-Positions: Another Look at Algonquian.” *Linguistic Inquiry* 36(4): 648-660.

Ritter, Elizabeth and Martina Wiltschko. 2005. "Anchoring events to utterances without tense", In *The Proceedings of the 24th West Coast Conference on Formal Linguistics*, ed. John Alderete et al., 343-351. Somerville, MA: Cascadilla Proceedings Project.

Ritter, Elizabeth and Martina Wiltschko. In Prep. “LOCATION and PERSON as alternatives to TENSE.”

Ritter, Elizabeth. 2007. "He is the past tense of you: Exploring the relationship between person and tense in Blackfoot." Presented at the University of Victoria Linguistics Colloquiam, March 19th.

Rosen, Sara Thomas. 1999. “The syntactic representation of linguistic events.” *Glot International* 4(2):3-11.

Rothstein, Susan. 1995. “Adverbial Quantification over Events.” *Natural Language Semantics* 3:1-31.

Rothstein, S. D. 2004. *Structuring Events: A Study in the Semantics of Lexical Aspect*. Blackwell Publishing.

Siloni, Tal. 1995. "On Participial Relatives and Complementizer D0: a Case Study in Hebrew and French", *Natural Language and Linguistic Theory* 13.3, 445-487.

Siloni, Tal. 1997. *Noun Phrases and Nominalizations: The Syntax of DPs.* Kluwer Academic Publishers, Dordrecht.

Simons, Mandy. 2001. “On the Conversational Basis of some Presuppositions”. In *Proceedings of Semantics and Linguistic Theory*, eds. R. hasting, B. Jackson and Z. Zvolensky, 431-448. Cornell University, Ithaca, NY: CLC Publications.

Simons, Mandy. 2007. “Observations on embedding verbs, evidentiality, and presupposition”. *Lingua* 117, no. 6:1034-1056.

Slavin, Tanya. 2007. “T-Palatalization in Oji-Cree as a window into the morphosyntactic structure of the verbal complex”. Paper read at the 39th Algonquian Conference, York University. October 19-21.

Smith, C. S. 1997. *The Parameter of Aspect*. Springer.

Speas, Margaret. 2004. Evidentiality, Logophoricity, and the Syntactic Representation of Pragmatic Features. *Lingua* 114:255-276.

Stowell, Tim.1995. “The Phrase Structure of Tense.” In *Phrase Structure and the Lexicon,* eds. L. Zaring and J.Rooryck. Dordrecht: Kluwer.

Szabolcsi, A. 1994. “The Noun Phrase” In *The Syntactic Structure of Hungarian*. *Syntax and Semantics* 27, eds. F. Kiefer and K. É. Kiss. Academic Press, San Diego, California.

Taylor, Allan Ross. 1969. "A grammar of Blackfoot". Ph.D Dissertation, University of California, Berkeley.

Tenny, Carol. 1987. “Grammaticalizing aspect and affectedness.” Doctoral dissertation, MIT.

Tenny, Carol. 1994. *Aspectual Roles and the Syntax-Semantics Interface*. Springer.

Travis, Lisa. 1991. "Inner aspect and the structure of VP." In NELS 22, Newark, Delaware.

Travis, Lisa. In Prep. *Inner Aspect: The Articulation of VP*. Dordrecht, The Netherlands: Kluwer Academic Press. Accessed October 31st, 2007. http://www.arts.mcgill.ca/programs/Linguistics/faculty/travis/publications.htm

Tsai, W. D. 2008. “Tense anchoring in Chinese.” *Lingua 118*(5), 675-686.

Verkuyl, H. J. 1972. *On the Compositional Nature of the Aspects*. Springer.

Verkuyl, H. J. 1993. *A Theory of Aspectuality: The Interaction Between Temporal and Atemporal Structure*. Cambridge University Press.

Verkuyl, H. J. 2001. “Aspect in English: A Bulgarian Perspective.” *Journal of Semantics* 18, no. 4:367-390.

Uhlenbeck, C.C. 1938. *A concise Blackfoot grammar, based on material from the Southern Peigans.* Verhandelingen der Koninklijke Nederlandsche Akademie van Wetenschappen te Amsterdam, Afdeeling Letterkunde, Nieuwe Reeks, Deel 41.

Uribe-Ecchevarria, Maria. 1994. "Interface licensing conditions on negative polarity items:
A theory of polarity and Tense interactions. Ph.D Dissertation, University of Connecticut.

Varzi, A. C. 2006. "The Talk I was supposed to give…" In *Modes of Existence. Papers in Ontology and Philosophical Logic,* eds. A. Bottani and R. Davies, 131-152. Frankfurt: Ontos Verlag.

Vendler, Zeno. 1968. *Adjectives and Nominalizations*. Mouton, the Hague.

Vendler, Zeno. 1967. *Linguistics in Philosophy*. Cornell University Press, Ithaca.

Vendler, Zeno. 1975 "Causal Relations.” In D. Davidson and G. Harman, eds., *The Logic of Grammar*, Dickenson, pp.255-261.

Wheeler III, Samuel C. 1972. “Attributives and Their Modifiers.” *Noûs* 6:310-334.

Wolfart, H.C. 1991. “Passives with and without agents.” In *Linguistic studies presented to John L. Finlay: Algonquian and Iroquoian linguistics Memoir* 8, ed. H.C. Wolfart, 171-190. Winnipeg, University of Manitoba, Department of Linguistics.

Zagona, Karen. 1990. “Times as temporal argument structure.” Unpublished ms.

Zucchi, Alessandro. 1993. *The Language of Propositions and Events: Issues in the Syntax and Semantics of Nominalization*, Vol. 51 of Studies in Linguistics and Philosophy, Kluwer Academic Publishers, Dordrecht, the Netherlands.